

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Samuel Wei Liu Examiner #: 79120 Date: 5-20-03
 Art Unit: 1653 Phone Number 306-3463 Serial Number: 09297040
 Mail Box and Bldg/Room Location: 9801 Results Format Preferred (circle): PAPER DISK E-MAIL
9808

If more than one search is submitted, please prioritize searches in order of need:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

please search peptide sequence SEQ ID NO: 4

Thanks

Samuel Liu

POINT OF CONTACT:
PAUL SCHULWITZ
TECHNICAL INFO. SPECIALIST
CM1 6806 TEL. (703) 305-1954

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) <u>1</u>	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: <u>5/20</u>	Bibliographic _____	Dr.Link _____
Date Completed: <u>5/20</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>5</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>5</u>	Other _____	Other (specify) _____

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GenCore version 5.1.4.p5_4578
Copyright (c) 1993 - 2003 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: May 20, 2003, 12:18:40 ; Search time 21 Seconds
(without alignments)
1161.737 Million cell updates/sec

Title: US-09-297-040-4
Perfect score: 1357
Sequence: 1 MADNFSLHDALSGGNPNPQ.....ISKLGISGIDILTSASYMI 246

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 375593 seqs, 99172665 residues

Total number of hits satisfying chosen parameters: 375593

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications_AA:*

- 1: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep.*
- 2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep.*
- 3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep.*
- 4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep.*
- 5: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
- 6: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
- 7: /cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep.*
- 8: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep.*
- 9: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep.*
- 10: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
- 11: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep.*
- 12: /cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep.*
- 13: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep.*
- 14: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1315	96.9	250	9	US-09-981-353-127
2	1315	96.9	250	9	US-10-235-674-10
3	1315	96.9	250	9	US-09-877-790-2
4	1315	96.9	250	9	US-10-153-668-346
5	1315	96.9	250	10	US-09-263-689-10
6	1079	79.5	262	9	US-10-235-674-14
7	1079	79.5	262	10	US-09-263-689-14
8	752	55.4	149	9	US-09-728-479-6
9	723	53.3	143	9	US-09-877-790-1
10	295	21.7	322	10	US-09-728-479-11
11	289	21.3	378	9	US-09-854-133-439
12	289	21.3	378	10	US-09-738-973-439
13	283	20.9	323	10	US-09-728-479-2
14	267	19.7	323	10	US-09-728-479-12
15	264	19.5	311	9	US-10-235-674-4
16	264	19.5	311	10	US-09-263-689-4
17	250.5	18.5	145	9	US-10-235-674-12
18	250.5	18.5	145	10	US-09-728-479-8
19	250.5	18.5	145	10	US-09-894-526-5

20	250.5	18.5	145	10	US-09-263-689-12	Sequence 12, Appl
21	249	18.3	149	10	US-09-894-526-3	Sequence 3, Appl
22	246.5	18.2	168	9	US-10-025-380-199	Sequence 199, App
23	246.5	18.2	168	10	US-09-922-217-199	Sequence 199, App
24	246.5	18.2	168	10	US-09-833-263-199	Sequence 199, App
25	243.5	17.9	145	10	US-09-894-526-1	Sequence 1, Appl
26	236.5	17.4	324	9	US-10-235-674-11	Sequence 11, Appl
27	236.5	17.4	324	10	US-09-728-479-7	Sequence 7, Appl
28	236.5	17.4	324	10	US-09-263-689-11	Sequence 11, Appl
29	223.5	16.5	183	9	US-09-948-227-8	Sequence 8, Appl
30	223.5	16.5	200	9	US-10-235-674-8	Sequence 8, Appl
31	223.5	16.5	200	10	US-09-263-689-8	Sequence 8, Appl
32	223.5	16.5	316	10	US-09-747-804-5	Sequence 5, Appl
33	223.5	16.5	317	9	US-10-235-674-6	Sequence 6, Appl
34	223.5	16.5	317	9	US-09-948-227-6	Sequence 6, Appl
35	223.5	16.5	317	10	US-09-263-689-6	Sequence 6, Appl
36	218.5	16.1	315	10	US-09-728-479-10	Sequence 10, Appl
37	218.5	16.1	316	9	US-10-235-674-15	Sequence 15, Appl
38	218.5	16.1	316	9	US-10-235-674-17	Sequence 17, Appl
39	218.5	16.1	316	10	US-09-263-689-15	Sequence 15, Appl
40	218.5	16.1	316	10	US-09-263-689-17	Sequence 17, Appl
41	215.5	15.9	323	9	US-09-981-353-110	Sequence 110, App
42	215.5	15.9	323	9	US-10-025-380-1064	Sequence 1064, Ap
43	215.5	15.9	323	9	US-10-235-674-2	Sequence 2, Appl
44	215.5	15.9	323	10	US-09-802-674-2	Sequence 2, Appl
45	215.5	15.9	323	10	US-09-922-217-1064	Sequence 1064, Ap

ALIGNMENTS

RESULT 1
US-09-981-353-127
; Sequence 127, Application US/09981353
; Patent No. US20020160382A1
; GENERAL INFORMATION:
; APPLICANT: Iasek, Amy W.
; APPLICANT: Jones, David A.
; TITLE OF INVENTION: GENES EXPRESSED IN COLON CANCER
; FILE REFERENCE: PA-0038 US
; CURRENT APPLICATION NUMBER: US/09/981,353
; CURRENT FILING DATE: 2001-10-11
; NUMBER OF SEQ ID NOS: 194
; SOFTWARE: PERL Program
; SEQ ID NO 127
; LENGTH: 250
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: Incyte ID No. US20020160382A1 898779CD1
US-09-981-353-127

Query Match	96.9%	Score	1315	DB	9	Length	250
Best Local Similarity	98.4%	Pred. No.	1.1e-85				
Matches	246	Conservative	0	Mismatches	0	Indels	4
Gaps	4						
Qy	1	MADNFSLHDALSGGNPNPQGWPGANGNPAGAGGYPGASYPG-YPCQAPPGAYPGQAPP	59				
Db	1	MADNFSLHDALSGGNPNPQGWPGANGNPAGAGGYPGASYPGAYPGQAPPGAYPGQAPP	60				
Qy	60	GAYHGAPGAYPGAPAGVYPPGPPSGPGAYPSSQSPAGAY-ATGPGAPAGPLIVPYNL	118				
Db	61	GAYHGAPGAYPGAPAGVYPPGPPSGPGAYPSSQSPAGAYPATGPGAPAGPLIVPYNL	120				
Qy	119	PLPGGVVPRMLITILGTVKPNANRIALDFORGNDVAFHF-PRNENNRVIVCNKLDNN	177				
Db	121	PLPGGVVPRMLITILGTVKPNANRIALDFORGNDVAFHFPRNENNRVIVCNKLDNN	180				
Qy	178	WGREERQSVPEPESGPKICVLVEPDHFKVAVNDAH-LOYNHRVKKLNETSLGISGDI	236				
Db	181	WGREERQSVPEPESGPKFKIQVLVEPDHFKVAVNDAHLLQYNHRVKKLNETSLGISGDI	240				

QY 237 DLTSASYTMI 246
Db 241 DLTSASYTMI 250

RESULT 2

US-10-235-674-10
Sequence 10, Application US/10235674
Publication No. US20030040081A1
GENERAL INFORMATION:
APPLICANT: Nj. Jian
APPLICANT: Gentz, Reiner L.
APPLICANT: Ruber, Steven M.
TITLE OF INVENTION: Galectin 9 and 10SV Polynucleotides
FILE REFERENCE: 1489,0560004
CURRENT APPLICATION NUMBER: US/10/235,674
CURRENT FILING DATE: 2002-09-06
PRIOR APPLICATION NUMBER: US 09/656,450
PRIOR FILING DATE: 2000-09-06
PRIOR APPLICATION NUMBER: US 09/263,689
PRIOR FILING DATE: 1999-03-05
PRIOR APPLICATION NUMBER: US 08/946,914
PRIOR FILING DATE: 1997-10-09
PRIOR APPLICATION NUMBER: US 60/028,093
PRIOR FILING DATE: 1996-10-09
NUMBER OF SEQ ID NOS: 60
SOFTWARE: Patentin version 3.0
SEQ ID NO 10
LENGTH: 250
TYPE: PRT
ORGANISM: Homo sapiens
US-10-235-674-10

Query Match
Best Local Similarity 96.9%; Score 1315; DB 9; Length 250;
Matches 246; Conservative 0; Mismatches 0; Indels 4; Gaps 4;

QY 1 MADNFSLHDALSGSGNPNQGWPGKAGNPAGAGGYPGASYPG-YPCOAPPGAYPGQAPP 59
Db 1 MADNFSLHDALSGSGNPNQGWPGKAGNPAGAGGYPGASYPGAYPGOAPPGAYPGQAPP 60
QY 60 GAYHAGAPGAYPGAPAGVYPCPPSGPGAYPSSGQPSAPGAY-ATGPGYCAPGLIIVPNL 118
Db 61 GAYHAGAPGAYPGAPAGVYPCPPSGPGAYPSSGQPSAPGAYPATGPGYCAPGLIIVPNL 120
QY 119 PLPGGVVPRMLITILGTVPKPNANRIALDFQGNDAVAFHF-PRENENNRVIVCNKLDNN 177
Db 121 PLPGGVVPRMLITILGTVPKPNANRIALDFQGNDAVAFHFNPRENENNRVIVCNKLDNN 180
QY 178 WGREEROSVFPFESGKPKIQVLVEPDHFKVAVNDAH-LQYNHRVKKLNKLSKLGISDI 236
Db 181 WGREEROSVFPFESGKPKIQVLVEPDHFKVAVNDAHLLQYNHRVKKLNKLSKLGISDI 240
QY 237 DLTSASYTMI 246
Db 241 DLTSASYTMI 250

RESULT 3

US-09-877-790-2
Sequence 2, Application US/09877790
Publication No. US20030054962A1
GENERAL INFORMATION:
APPLICANT: Jarvis, Gary
APPLICANT: John, Constance
APPLICANT: Lettier, Hakon
TITLE OF INVENTION: N-TERMINALLY TRUNCATED GALECTIN-3 FOR USE IN TREATING CANCER
FILE REFERENCE: 3157,00004
CURRENT APPLICATION NUMBER: US/09/877,790
CURRENT FILING DATE: 2001-06-08
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin version 3.0
SEQ ID NO 2

LENGTH: 250
TYPE: PRT
ORGANISM: homo sapien
US-09-877-790-2

Query Match
Best Local Similarity 96.9%; Score 1315; DB 9; Length 250;
Matches 246; Conservative 0; Mismatches 0; Indels 4; Gaps 4;

QY 1 MADNFSLHDALSGSGNPNQGWPGKAGNPAGAGGYPGASYPG-YPCOAPPGAYPGQAPP 59
Db 1 MADNFSLHDALSGSGNPNQGWPGKAGNPAGAGGYPGASYPGAYPGOAPPGAYPGQAPP 60
QY 60 GAYHAGAPGAYPGAPAGVYPCPPSGPGAYPSSGQPSAPGAY-ATGPGYCAPGLIIVPNL 118
Db 61 GAYHAGAPGAYPGAPAGVYPCPPSGPGAYPSSGQPSAPGAYPATGPGYCAPGLIIVPNL 120
QY 119 PLPGGVVPRMLITILGTVPKPNANRIALDFQGNDAVAFHF-PRENENNRVIVCNKLDNN 177
Db 121 PLPGGVVPRMLITILGTVPKPNANRIALDFQGNDAVAFHFNPRENENNRVIVCNKLDNN 180
QY 178 WGREEROSVFPFESGKPKIQVLVEPDHFKVAVNDAH-LQYNHRVKKLNKLSKLGISDI 236
Db 181 WGREEROSVFPFESGKPKIQVLVEPDHFKVAVNDAHLLQYNHRVKKLNKLSKLGISDI 240
QY 237 DLTSASYTMI 246
Db 241 DLTSASYTMI 250

RESULT 4

US-10-153-668-346
Sequence 346, Application US/10153668
Publication No. US20030092616A1
GENERAL INFORMATION:
APPLICANT: HONDA, Goichi
APPLICANT: MATSUDA, Akio
APPLICANT: MURAMATSU, Shuji
APPLICANT: ISHIZAWA, Kenya
TITLE OF INVENTION: STARS Activating Gene
FILE REFERENCE: 1254-0207P
CURRENT APPLICATION NUMBER: US/10/153,668
CURRENT FILING DATE: 2002-05-24
PRIOR APPLICATION NUMBER: US 60/293,172
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: US 60/316,031
PRIOR FILING DATE: 2001-08-31
PRIOR APPLICATION NUMBER: US 60/328,403
PRIOR FILING DATE: 2001-10-12
PRIOR APPLICATION NUMBER: JP 2001-157043
PRIOR FILING DATE: 2001-05-25
PRIOR APPLICATION NUMBER: JP 2001-260681
PRIOR FILING DATE: 2001-08-30
PRIOR APPLICATION NUMBER: JP 2001-313175
NUMBER OF SEQ ID NOS: 488
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 346
LENGTH: 250
TYPE: PRT
ORGANISM: Homo sapiens
US-10-153-668-346

Query Match
Best Local Similarity 96.9%; Score 1315; DB 9; Length 250;
Matches 246; Conservative 0; Mismatches 0; Indels 4; Gaps 4;

QY 1 MADNFSLHDALSGSGNPNQGWPGKAGNPAGAGGYPGASYPG-YPCOAPPGAYPGQAPP 59
Db 1 MADNFSLHDALSGSGNPNQGWPGKAGNPAGAGGYPGASYPGAYPGOAPPGAYPGQAPP 60
QY 60 GAYHAGAPGAYPGAPAGVYPCPPSGPGAYPSSGQPSAPGAY-ATGPGYCAPGLIIVPNL 118
Db 61 GAYHAGAPGAYPGAPAGVYPCPPSGPGAYPSSGQPSAPGAYPATGPGYCAPGLIIVPNL 120

Db 61 GAYHAGPAGPAGVYPPGSGPAGYSSGQPSAPGAYPATGPGYAPAGPLIVPNL 120
Qy 119 PLPGVWVPRMLITILGTVPKPNANRIALDFQRGNDAFHF-PFNNRRVIVCNTKLNN 177
Db 121 PLPGVWVPRMLITILGTVPKPNANRIALDFQRGNDAFHF-PFNNRRVIVCNTKLNN 180
Qy 178 WGREERQSVFFESGPKFKIQVLVEPDHFKVAVNDAAH-LOYNHRVKKLEISKLGISGDI 236
Db 181 WGREERQSVFFESGPKFKIQVLVEPDHFKVAVNDAAHLOYNHRVKKLEISKLGISGDI 240
Qy 237 DLTSASYTMI 246
Db 241 DLTSASYTMI 250

RESULT 5
US-09-263-689-10
; Sequence 10, Application US/09263689
; Patent No. US20020150970A1
; GENERAL INFORMATION:
; APPLICANT: Ni, Jian
; APPLICANT: Gentz, Reiner L.
; APPLICANT: Ruben, Steven M.
; TITLE OF INVENTION: Galectin 8, 9, 10 and 10SV
; NUMBER OF SEQUENCES: 60
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein, & Fox P.L.L.C.
; STREET: 1100 New York Ave., Suite 600
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20005-3934
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/263.689
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/946,914
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Steffe, Eric K.
; REGISTRATION NUMBER: 36,688
; REFERENCE/DOCKET NUMBER: 1488.0560001/EKS/SCW
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-2600
; TELEFAX: 202-371-2540
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 250 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-263-689-10

Query Match 96.9%; Score 1315; DB 10; Length 250;
Best Local Similarity 98.4%; Pred. No. 1.le-85;
Matches 246; Conservative 0; Mismatches 0; Indels 4; Gaps 4;

Qy 1 MADNFSLDALSGGNPNPQGWPGAWGNOPAGAGYPGASYPG-YPGQAPPYPCQAPP 59
Db 1 MADNFSLDALSGGNPNPQGWPGAWGNOPAGAGYPGASYPG-YPGQAPPYPCQAPP 60
Qy 60 GAYHAGPAGPAGVYPPGSGPAGYSSGQPSAPGAY-ATGPGYAPAGPLIVPNL 118
Db 61 GAYHAGPAGPAGVYPPGSGPAGYSSGQPSAPGAYPATGPGYAPAGPLIVPNL 120
Qy 119 PLPGVWVPRMLITILGTVPKPNANRIALDFQRGNDAFHF-PFNNRRVIVCNTKLNN 177

Db 121 PLPGVWVPRMLITILGTVPKPNANRIALDFQRGNDAFHF-PFNNRRVIVCNTKLNN 180
Qy 178 WGREERQSVFFESGPKFKIQVLVEPDHFKVAVNDAAH-LOYNHRVKKLEISKLGISGDI 236
Db 181 WGREERQSVFFESGPKFKIQVLVEPDHFKVAVNDAAHLOYNHRVKKLEISKLGISGDI 240
Qy 237 DLTSASYTMI 246
Db 241 DLTSASYTMI 250

RESULT 6
US-10-235-674-14
; Sequence 14, Application US/10235674
; Publication No. US20030040081A1
; GENERAL INFORMATION:
; APPLICANT: Ni, Jian
; APPLICANT: Gentz, Reiner L.
; APPLICANT: Ruben, Steven M.
; TITLE OF INVENTION: Galectin 9 and 10SV Polynucleotides
; FILE REFERENCE: 1488.0560004
; CURRENT APPLICATION NUMBER: US/10/235.674
; CURRENT FILING DATE: 2002-09-06
; PRIOR APPLICATION NUMBER: US 09/656,450
; PRIOR FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: US 09/263,689
; PRIOR FILING DATE: 1999-03-05
; PRIOR APPLICATION NUMBER: US 08/946,914
; PRIOR FILING DATE: 1997-10-09
; PRIOR APPLICATION NUMBER: US 60/028,093
; PRIOR FILING DATE: 1996-10-09
; NUMBER OF SEQ ID NOS: 60
; SOFTWARE: Patent In version 3.0
; SEQ ID NO 14
; LENGTH: 262
; TYPE: PRT
; ORGANISM: Rat
US-10-235-674-14

Query Match 79.5%; Score 1079; DB 9; Length 262;
Best Local Similarity 77.9%; Pred. No. 4.9e-69;
Matches 205; Conservative 16; Mismatches 24; Indels 18; Gaps 7;

Qy 1 MADNFSLDALSGGNPNPQGWPGAWGNOPAGAGYPGASYPG-YPGQAPPYPCQAPP 59
Db 1 MADGFSLDALAGSNPNPQGWPGAWGNOP-CAGGYPGASYPGAYPGQAPPYPCQAPP 59
Qy 60 GAYHG-----APGAYPGAPAPGYVYPPGSGPAGYSS--GQPSAPGAY-ATGPGY 105
Db 60 SAYPGTGTGPSAYPGTAPGAYPGTAPGAFPGQPGGPGAYPSAPGAYPATGPF 119
Qy 106 GAPAGPLIVPNLPLPGVWVPRMLITILGTVPKPNANRIALDFQRGNDAFHF-PFNNRRV 164
Db 120 GAPTGLTPYDMDPLPGGVMPRLITITIGTVKPNANSITLNFKKGNDIAFHFNNRRV 179
Qy 165 RRIVCNTKLDNNWGREERQSVFFESGPKFKIQVLVEPDHFKVAVNDAAH-LOYNHRVKK 223
Db 180 RRIVCNTKQDNNWGREERQSAFFESGPKFKIQVLVEADHFKVAVNDVHLLQYNNRMKN 239
Qy 224 LNEISKLGISGDI DLTSASYTMI 246
Db 240 LREISQLGIIGDITLTLSASHMI 262

RESULT 7
US-09-263-689-14
; Sequence 14, Application US/09263689
; Patent No. US20020150970A1
; GENERAL INFORMATION:
; APPLICANT: Ni, Jian
; APPLICANT: Gentz, Reiner L.
; APPLICANT: Ruben, Steven M.

Tue May 20 14:40:26 2003

;; TITLE OF INVENTION: Galectin 8, 9, 10 and 10SV
;; NUMBER OF SEQUENCES: 60
;; CORRESPONDENCE ADDRESSES:
;; ADDRESSEE: Sterne, Kessler, Goldstein, & Fox P.L.L.C.
;; STREET: 1100 New York Ave., Suite 600
;; CITY: Washington
;; STATE: D.C.
;; COUNTRY: USA
;; ZIP: 20005-3934
;; COMPUTER READABLE FORM:
;; MEDIUM TYPE: Floppy disk
;; COMPUTER: IBM PC compatible
;; OPERATING SYSTEM: PC-DOS/MS-DOS
;; SOFTWARE: Patentin Release #1.0, Version #1.30
;; CURRENT APPLICATION DATA:
;; APPLICATION NUMBER: US/09/263,689

;; FILING DATE:
;; CLASSIFICATION:
;; PRIOR APPLICATION DATA:
;; APPLICATION NUMBER: 08/946,914
;; FILING DATE:
;; ATTORNEY/AGENT INFORMATION:
;; NAME: Steffe, Eric K.
;; REGISTRATION NUMBER: 36,688
;; REFERENCE/DOCKET NUMBER: 1488.0560001/EKS/SGW
;; TELECOMMUNICATION INFORMATION:
;; TELEPHONE: 202-371-2600
;; TELEFAX: 202-371-2540
;; INFORMATION FOR SEQ ID NO: 14:
;; SEQUENCE CHARACTERISTICS:
;; LENGTH: 262 amino acids
;; TYPE: amino acid
;; STRANDEDNESS: single
;; TOPOLOGY: linear
;; MOLECULE TYPE: protein
;; US-09-263-689-14

Query Match 79.5%; Score 1079; DB 10; Length 262;
Best Local Similarity 77.9%; Pred. No. 4.9e-69;
Matches 205; Conservative 16; Mismatches 24; Indels 18; Gaps 7;
QY 1 MADNFSLDALSGSNPNPCWPCGAWGNQPGAGGYPGASYPG-YPCQAPPGAYPCQAPP 59
DB 1 MADGFSLDALAGSNPNPCWPCGAWGNQPGAGGYPGASYPGAYPCQAPP 59
QY 60 GAYHG-----AFGAYGAPAGGVPGSPGAYPSS--GQSPAGAY-ATGPY 105
DB 60 SAYPGTGPSAYPGTAFGAYPGTAPGAFPGQPGGAYPSAPGAYPATGPF 119
QY 106 GAPAGPLIVPNLPLPGGVPRMLITILGTVPKNANRIALDFQGNDAVAFHF-PRNENN 164
DB 120 GAPTGLTPVYDMLPGGVPRMLITILGTVPKNANRIALDFQGNDAVAFHF-PRNENN 179
QY 165 RRVIVCNTKLDNNWGREERQSVFPESGPKPKIQVLVEPDHFKVAVNDAAH-LOYNHRVK 223
DB 180 RRVIVCNTKLDNNWGREERQSVFPESGPKPKIQVLVEADHFKVAVNDVHLLQYNHRMKN 239
QY 224 LNEISKLGISGDIIDLTASVTMI 246
DB 240 LREISQLGIIGDITLTSASHAMI 262

RESULT 8
US-09-728-479-6
; Sequence 6, Application US/09728479
; Patent No. US20020034726A1
; GENERAL INFORMATION:
; APPLICANT: KANEGASAKI, SHIRO
; APPLICANT: MATSUMOTO, RYOJI
; APPLICANT: HIRASHIMA, MITSUOMI
; FILE OF INVENTION: EOSINOPHIL CHEMOTACTIC FACTOR
; FILE REFERENCE: 3914-2
; CURRENT APPLICATION NUMBER: US/09/728,479

;; CURRENT FILING DATE: 2001-08-16
;; PRIOR APPLICATION NUMBER: PCT/JP99/02952
;; PRIOR FILING DATE: 1999-06-02
;; PRIOR APPLICATION NUMBER: JP 10/170698
;; PRIOR FILING DATE: 1998-06-02
;; NUMBER OF SEQ ID NOS: 12
;; SOFTWARE: Patentin Ver. 2.1
;; SEQ ID NO 6
;; LENGTH: 149
;; TYPE: PRT
;; ORGANISM: Homo sapiens
;; US-09-728-479-6

Query Match 55.4%; Score 752; DB 10; Length 149;
Best Local Similarity 98.6%; Pred. No. 3.1e-46;
Matches 146; Conservative 0; Mismatches 2; Gaps 2;
QY 101 ATGPYGAPAGPLIVPNLPLPGGVPRMLITILGTVPKNANRIALDFQGNDAVAFHF-PR 159
DB 2 ATGPYGAPAGPLIVPNLPLPGGVPRMLITILGTVPKNANRIALDFQGNDAVAFHF-PR 61
QY 160 FNNRRRVIVCNTKLDNNWGREERQSVFPESGPKPKIQVLVEPDHFKVAVNDAAH-LOYN 218
DB 62 FNNRRRVIVCNTKLDNNWGREERQSVFPESGPKPKIQVLVEPDHFKVAVNDAAHLLQYN 121
QY 219 HRVKKLNEISKLGISGDIIDLTASVTMI 246
DB 122 HRVKKLNEISKLGISGDIIDLTASVTMI 149

RESULT 9
US-09-877-790-1
; Sequence 1, Application US/09877790
; Publication No. US20030054982A1
; GENERAL INFORMATION:
; APPLICANT: Jarvis, Gary
; APPLICANT: Lefler, Hakon
; APPLICANT: John, Constance
; TITLE OF INVENTION: N-TERMINALLY TRUNCATED GALECTIN-3 FOR USE IN TREATING CANCER
; FILE REFERENCE: 3157.00004
; CURRENT APPLICATION NUMBER: US/09/877,790
; CURRENT FILING DATE: 2001-06-08
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: Patentin version 3.0
; SEQ ID NO 1
; LENGTH: 143
; TYPE: PRT
; ORGANISM: homo sapien
; US-09-877-790-1

Query Match 53.3%; Score 723; DB 9; Length 143;
Best Local Similarity 98.6%; Pred. No. 3.3e-44;
Matches 141; Conservative 0; Mismatches 0; Indels 2; Gaps 2;
QY 106 GAPAGPLIVPNLPLPGGVPRMLITILGTVPKNANRIALDFQGNDAVAFHF-PRNENN 164
DB 1 GAPAGPLIVPNLPLPGGVPRMLITILGTVPKNANRIALDFQGNDAVAFHF-PRNENN 60
QY 165 RRVIVCNTKLDNNWGREERQSVFPESGPKPKIQVLVEPDHFKVAVNDAAH-LOYNHRVK 223
DB 61 RRVIVCNTKLDNNWGREERQSVFPESGPKPKIQVLVEPDHFKVAVNDAAHLLQYNHRVK 120
QY 224 LNEISKLGISGDIIDLTASVTMI 246
DB 121 LNEISKLGISGDIIDLTASVTMI 143

RESULT 10
US-09-728-479-11
; Sequence 11, Application US/09728479
; Patent No. US20020034726A1
; GENERAL INFORMATION:
; APPLICANT: KANEGASAKI, SHIRO

APPLICANT: MATSUMOTO, RYOJI
APPLICANT: HIRASHIMA, MITSUOMI
TITLE OF INVENTION: EOSINOPHIL CHEMOTACTIC FACTOR
FILE REFERENCE: 3914-2
CURRENT APPLICATION NUMBER: US/09/728,479
CURRENT FILING DATE: 2001-08-16
PRIOR APPLICATION NUMBER: PCF/J999/02952
PRIOR FILING DATE: 1999-06-02
PRIOR APPLICATION NUMBER: JP 10/170698
PRIOR FILING DATE: 1998-06-02
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 11
LENGTH: 322
TYPE: PRT
ORGANISM: Mus sp.
US-09-728-479-11

Query Match 21.7%; Score 295; DB 10; Length 322;
Best Local Similarity 37.0%; Pred. No. 1.1e-13;
Matches 68; Conservative 29; Mismatches 47; Indels 40; Gaps 8;
QY 63 HGAPG---AYGAPAPGVYPPSGPGAYPSSGQPSAPGAYATPGVAPAGPLIVPNLP 119
DB 168 HSTPGQMFSTGIP-PVYPTP-----AYT-----IPFYTP 197
QY 120 LPGVVVPRMLITILGTVKPNANRIALDFQGNDAVAFH-PFNNENRRVIVNCNTKLDNNW 178
DB 198 IINGLYPSKSMISLVLPDATERHNLRCGGDIAFHLPNREN---AVVRTQINNSW 254
QY 179 GREERQSV--PFESGKPKIOVLVEPDHFKVAVNDAHL-QYNHRVKLNKLEISGDISGD 235
DB 255 GOEERSLGRMPFVRGQSFVSVMICEGHCFKVAVNGQHMCEYHRLKNLQDINTLEVAGD 314
QY 236 IDLT 239
DB 315 IQLT 318

RESULT 11
US-09-854-133-439
Sequence 439, Application US/09854133
Publication No. US20020183499A1
GENERAL INFORMATION:
APPLICANT: Lodes, Michael J.
APPLICANT: Mohamath, Raodoh
APPLICANT: Henderson, Robert A.
APPLICANT: Benson, Darin R.
APPLICANT: Secrist, Heather
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
THE THERAPY AND DIAGNOSIS OF LUNG CANCER
FILE REFERENCE: 210121.475C10
CURRENT APPLICATION NUMBER: US/09/854,133
CURRENT FILING DATE: 2001-05-11
NUMBER OF SEQ ID NOS: 735
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 439
LENGTH: 378
TYPE: PRT
ORGANISM: Homo sapiens
US-09-854-133-439

Query Match 21.3%; Score 289; DB 9; Length 378;
Best Local Similarity 36.2%; Pred. No. 3.5e-13;
Matches 75; Conservative 29; Mismatches 65; Indels 38; Gaps 9;
QY 66 PGAYGAPGAP-----PGVYPPGPPSG-----PGAYPSSGQP-----SAPGAYAT 102
DB 173 PRTVPVQAFSTVPFSQPVCFPPRRGRQKPPGVWPANPAPITQTVIHTVQSAPQOMFS 232
QY 103 GP-----YGAPAGPLIVPNLPLPGVVVPRMLITILGTVKPNANRIALDFQGNDAVAFH 156
DB 233 TPAIPPMYHPHAYPM--PFITITLGLVPSKILLSGTVLPQAQRHINLCSGNHIAFH 290

QY 157 F-PRNNENRRVIVNCNTKLDNNWGREERQ--SVFPFESGKPKIOVLVEPDHFKVAVNDA 213
DB 291 LNPRFDE---AVVRTQIDNSWSEERSLPRKMPFVRGQSFVSFWILCEAHCLKLVAVDQG 347
QY 214 HL-QYNHRVKLNKLEISGDISGDIQT 239
DB 348 HLFYHYHRLNRLPTINRLEVGGDIQT 374

RESULT 12
US-09-738-973-439
Sequence 439, Application US/09738973
Patent No. US20020110563A1
GENERAL INFORMATION:
APPLICANT: Reed, Steven G.
APPLICANT: Lodes, Michael J.
APPLICANT: Fling, Steven P.
APPLICANT: Mohamath, Raodoh
APPLICANT: Algata, Paul A.
APPLICANT: Secrist, Heather
APPLICANT: Indirias, Carol Ioseph
APPLICANT: Benson, Darin R.
APPLICANT: Elliot, Mark
APPLICANT: Mannion, Jane
APPLICANT: Kalos, Michael D.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
THE THERAPY AND DIAGNOSIS OF LUNG CANCER
FILE REFERENCE: 210121.475C9
CURRENT APPLICATION NUMBER: US/09/738,973
CURRENT FILING DATE: 2000-12-14
NUMBER OF SEQ ID NOS: 587
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 439
LENGTH: 378
TYPE: PRT
ORGANISM: Homo sapiens
US-09-738-973-439

Query Match 21.3%; Score 289; DB 10; Length 378;
Best Local Similarity 36.2%; Pred. No. 3.5e-13;
Matches 75; Conservative 29; Mismatches 65; Indels 38; Gaps 9;
QY 66 PGAYGAPGAP-----PGVYPPGPPSG-----PGAYPSSGQP-----SAPGAYAT 102
DB 173 PRTVPVQAFSTVPFSQPVCFPPRRGRQKPPGVWPANPAPITQTVIHTVQSAPQOMFS 232
QY 103 GP-----YGAPAGPLIVPNLPLPGVVVPRMLITILGTVKPNANRIALDFQGNDAVAFH 156
DB 233 TPAIPPMYHPHAYPM--PFITITLGLVPSKILLSGTVLPQAQRHINLCSGNHIAFH 290
QY 157 F-PRNNENRRVIVNCNTKLDNNWGREERQ--SVFPFESGKPKIOVLVEPDHFKVAVNDA 213
DB 291 LNPRFDE---AVVRTQIDNSWSEERSLPRKMPFVRGQSFVSFWILCEAHCLKLVAVDQG 347
QY 214 HL-QYNHRVKLNKLEISGDISGDIQT 239
DB 348 HLFYHYHRLNRLPTINRLEVGGDIQT 374

RESULT 13
US-09-728-479-2
Sequence 2, Application US/09728479
Patent No. US20020034726A1
GENERAL INFORMATION:
APPLICANT: KANEGASAKI, SHIRO
APPLICANT: MATSUMOTO, RYOJI
APPLICANT: HIRASHIMA, MITSUOMI
TITLE OF INVENTION: EOSINOPHIL CHEMOTACTIC FACTOR
FILE REFERENCE: 3914-2
CURRENT APPLICATION NUMBER: US/09/728,479
CURRENT FILING DATE: 2001-08-16

;; PRIOR APPLICATION NUMBER: PCT/JP99/02952
;; PRIOR FILING DATE: 1999-06-02
;; PRIOR APPLICATION NUMBER: JP 10/170698
;; PRIOR FILING DATE: 1998-06-02
;; NUMBER OF SEQ ID NOS: 12
;; SOFTWARE: PatentIn Ver. 2.1
;; SEQ ID NO 2
;; LENGTH: 323
;; TYPE: PRT
;; ORGANISM: Homo sapiens
US-09-728-479-2

Query Match 20.9%; Score 283; DB 10; Length 323;
Best Local Similarity 34.1%; Pred. No. 7.9e-13;
Matches 73; Conservative 27; Mismatches 70; Indels 44; Gaps 8;
QY 38 GASYPGYPGQAPPAYPGQAPP-----GAYHGAPGAYPGAPA--PGVYPPSPGPGAYP 89
Db 138 GSVQLSYISFQPPGVWPANPAPITQTIVHTVQSAPGQMFSTPAIPPMYPHP-----AYP 192
QY 90 SSGQPSAPGAYATGYPGAPAGPLIVPNPLPGVVPRLITILGTVKPNANRIALDFOR 149
Db 193 -----MPFTITILGGLYPSKILLSGTVLPSPAQRHINLCS 228
QY 150 GNDVAFHF--PRFNNRRRVIVCNKLDNNGREERQ--SVFPFESGKPKIQVLVEPDHF 206
Db 229 GNHIAFHLNPRDEN---AVVRNTQIDNSWGSEERSLPRKMPFVRGQSFVWILCEAHCL 285
QY 207 KVAVND AHL-QYNHRVKKLNEISKLGISGDIIDL 239
Db 286 KVAVDQHLFEYHRLNRLPTINRLEVGDIQLT 319

RESULT 14
US-09-728-479-12
;; Sequence 12, Application US/09728479
;; Patent No. US20020034726A1
;; GENERAL INFORMATION:
;; APPLICANT: KANEGASAKI, SHIRO
;; APPLICANT: MATSUMOTO, RYOJI
;; APPLICANT: HIRASHIMA, RITSUOMI
;; TITLE OF INVENTION: EOSINOPHIL CHEMOTACTIC FACTOR
;; FILE REFERENCE: 3914-2
;; CURRENT APPLICATION NUMBER: US/09/728,479
;; CURRENT FILING DATE: 2001-08-16
;; PRIOR APPLICATION NUMBER: PCT/JP99/02952
;; PRIOR FILING DATE: 1999-06-02
;; PRIOR APPLICATION NUMBER: JP 10/170698
;; PRIOR FILING DATE: 1998-06-02
;; NUMBER OF SEQ ID NOS: 12
;; SOFTWARE: PatentIn Ver. 2.1
;; SEQ ID NO 12
;; LENGTH: 323
;; TYPE: PRT
;; ORGANISM: Homo sapiens
US-09-728-479-12

Query Match 19.7%; Score 267; DB 10; Length 323;
Best Local Similarity 33.2%; Pred. No. 1.1e-11;
Matches 71; Conservative 27; Mismatches 72; Indels 44; Gaps 8;
QY 38 GASYPGYPGQAPPAYPGQAPP-----GAYHGAPGAYPGAPA--PGVYPPSPGPGAYP 89
Db 138 GSVQLSYISFQPPGVWPANPAPITQTIVHTVQSAPGQMFSTPAIPPMYPHP-----AYP 192
QY 90 SSGQPSAPGAYATGYPGAPAGPLIVPNPLPGVVPRLITILGTVKPNANRIALDFOR 149
Db 193 -----MPFTITILGGLYPSKILLSGTVLPSPAQRHINLCS 228
QY 150 GNDVAFHF--PRFNNRRRVIVCNKLDNNGREERQ--SVFPFESGKPKIQVLVEPDHF 206
Db 229 GNHIAFHLNPRDEN---AVVRNTQIDNSWGSEERSLPRKMPFVRGQSFVWILCEAHCL 285

QY 207 KVAVND AHL-QYNHRVKKLNEISKLGISGDIIDL 239
Db 286 KVAVDQHLFEYHRLNRLPTINRLEVGDIQLT 319
RESULT 15
US-10-235-674-4
;; Sequence 4, Application US/10235674
;; Publication No. US20030040081A1
;; GENERAL INFORMATION:
;; APPLICANT: Ni, Jian
;; APPLICANT: Gentz, Reiner L.
;; APPLICANT: Ruben, Steven M.
;; TITLE OF INVENTION: Galectin 9 and 10SV Polynucleotides
;; FILE REFERENCE: 1488.0560004
;; CURRENT APPLICATION NUMBER: US/10/235,674
;; CURRENT FILING DATE: 2002-09-06
;; PRIOR APPLICATION NUMBER: US 09/656,450
;; PRIOR FILING DATE: 2000-09-06
;; PRIOR APPLICATION NUMBER: US 09/263,689
;; PRIOR FILING DATE: 1999-03-05
;; PRIOR APPLICATION NUMBER: US 08/946,914
;; PRIOR FILING DATE: 1997-10-09
;; PRIOR APPLICATION NUMBER: US 60/028,093
;; PRIOR FILING DATE: 1996-10-09
;; NUMBER OF SEQ ID NOS: 60
;; SOFTWARE: PatentIn version 3.0
;; SEQ ID NO 4
;; LENGTH: 311
;; TYPE: PRT
;; ORGANISM: Homo sapiens
US-10-235-674-4

Query Match 19.5%; Score 264; DB 9; Length 311;
Best Local Similarity 36.5%; Pred. No. 1.7e-11;
Matches 66; Conservative 25; Mismatches 52; Indels 38; Gaps 7;
QY 65 APGAYPGAPA--PGVYPPSPGPGAYPSSGQPSAPGAYATGYPGAPAGPLIVPNPLPG 122
Db 159 APQMFSTPAIPPMYPHP-----AYP-----MPFITILG 189
QY 123 GVVPRMLITILGTVKPNANRIALDFORGNVAFHF--PRFNNRRRVIVCNKLDNNGRE 181
Db 190 GLYPSKILLSGTVLPSPAQRHINLCSGNHIAFHLNPRDEN---AVVRNTQIDNSWGSE 246
QY 182 ERQ--SVFPFESGKPKIQVLVEPDHFKVAVND AHL-QYNHRVKKLNEISKLGISGDI 238
Db 247 ERS LPRKMPFVRGQSFVWILCEAHCLKVAVDGQHLFEYHRLNRLPTINRLEVGDI 306
QY 239 T 239
Db 307 T 307

Search completed: May 20, 2003, 12:21:04
Job time : 22 secs

GenCore version 5.1.4.p5_4578
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OM protein - protein search, using sw model

Run on: May 20, 2003, 12:17:35 ; Search time 20 Seconds
(without alignments)
1182.453 Million cell updates/sec

Title: US-09-297-040-4

Perfect score: 1357

Sequence: 1 MAONFSLHDALSGGNPNQ.....ISKLIGISGDIDLFSASYMTI 246

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283224 seqs, 96134422 residues

Total number of hits satisfying chosen parameters: 283224

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

1: pir1.*

2: pir2.*

3: pir3.*

4: pir4.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1315	96.9	250	2 A35820	galactin 3 - human
2	1082	79.7	264	2 A28651	galactose-specific
3	1082	79.7	264	2 A45983	lactose-binding le
4	1076.5	79.3	294	2 A49688	lactose-binding le
5	1075	79.2	262	2 A34889	IgE-binding protei
6	1049.5	77.3	245	2 A34909	carbohydrate-bind
7	1024	75.5	242	2 JC4300	galactin-3 - rabbi
8	437	32.2	139	2 S08576	lectin - mouse (fr
9	254	18.7	323	2 A55664	lectin L-36 - pig
10	250.5	18.5	145	2 A55932	galactin-5 - rat
11	236.5	17.4	324	2 A46631	lactose-binding le
12	223.5	16.5	317	2 A66147	prostate carcinoma
13	218.5	16.1	316	2 A55975	galactin-8 - rat
14	211	15.5	136	2 I55469	galactin-7 - human
15	193	14.2	1049	1 CGB07S	collagen alpha 1(I
16	192.5	14.2	463	2 S29170	annexin VII - mous
17	180.5	14.0	177	2 S65780	glycine/proline-ri
18	189.5	14.0	329	2 T32783	hypothetical prote
19	188.5	13.9	279	2 T37216	beta-galactoside-b
20	188.5	13.9	285	2 T26325	hypothetical prote
21	188	13.9	744	2 S15435	collagen alpha 1(V
22	187.5	13.8	313	2 T22828	hypothetical prote
23	186.5	13.7	179	2 A85217	hypothetical prote
24	186.5	13.7	277	2 T04441	hypothetical prote
25	186	13.7	488	1 LUH07	annexin VII, long
26	185.5	13.7	488	2 A27353	collagen alpha 1(I
27	184	13.6	299	2 T19564	hypothetical prote
28	183.5	13.5	743	1 S23779	collagen alpha 1(V
29	183	13.5	299	2 T25407	hypothetical prote

ALIGNMENTS

RESULT 1

A35820

Galactin 3 - human

N:Alternate names: CBP 35; epithelial-specific lectin 35; galactoside-binding lectin
C:Species: Homo sapiens (man)
C:Date: 12-Oct-1990 #sequence_revision 12-Oct-1990 #text_change 20-Apr-2000
C:Accession: A35820; JQ0916; A47473; A36071; A49800
R:Robertson, M.W.; Albrandt, K.; Keller, D.; Liu, F.T.
Biochemistry 29, 8093-8100, 1990

A:Title: Human IgE-binding protein: a soluble lectin exhibiting a highly conserved in
A:Reference number: A35820; MUID:91084480; PMID:2261464
A:Accession: A35820

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-250 <ROB>

A:Cross-references: GB:M57710; MID:g179530; PIDN:AAA35607.1; PID:g179531; GB:J02921
R:Oda, Y.; Leffler, H.; Sakakura, Y.; Kasai, K.; Barondes, S.H.
Gene 99, 279-283, 1991

A:Title: Human breast carcinoma cDNA encoding a galactoside-binding lectin homologous

A:Reference number: JQ0916; MUID:91216471; PMID:2022338

A:Accession: JQ0916

A:Molecule type: mRNA

A:Residues: 1-250 <ODA>

A:Cross-references: GB:M36682; MID:g186921; PIDN:AAA36163.1; PID:g186922

R:Lotz, M.M.; Andrews Jr., C.W.; Korzeilius, C.A.; Lee, E.C.; Steele Jr., G.D.; Clarke

Proc. Natl. Acad. Sci. U.S.A. 90, 3466-3470, 1993

A:Title: Decreased expression of Mac-2 (carbohydrate binding protein 35) and loss of

A:Reference number: A47473; MUID:93234518; PMID:7682704

A:Accession: A47473

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-63, 'P', '65-97', 'n', '99-250 <LOT>

A:Cross-references: GB:S50012; MID:g299601; PIDN:AAB26229.1; PID:g299602

A:Experimental source: normal colonic mucosa, colon carcinoma, cell line clone A

A:Note: sequence extracted from NCBI backbone (NCBIN:129689, NCBI:129692)

R:Cherayil, B.J.; Chaitovitz, S.; Wong, C.; Pillai, S.

Proc. Natl. Acad. Sci. U.S.A. 87, 7324-7328, 1990

A:Title: Molecular cloning of a human macrophage lectin specific for galactose.

A:Reference number: A36071; MUID:90384999; PMID:2402511

A:Accession: A36071

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-32, 'O', '34', 'L', '37', 'RGFLSWGL', '46', 'RAGT', '51', 'R', '53-63', 'P', '65-87, 89-250 <CH

A:Cross-references: GB:M35368; MID:g1196441

A:Note: the sequence is revised in GenBank entry HUMMAC2, release 113.0, PIDN:AAA8808

R:Kaz, A.; Carmi, P.; Raz, T.; Hogan, V.; Mohamed, A.; Wolman, S.R.

Cancer Res. 51, 2173-2178, 1991

A:Title: Molecular cloning and chromosomal mapping of a human galactoside-binding pro

A:Reference number: A49800; MUID:91183475; PMID:2009535

A:Accession: A49800

A:Status: preliminary; not compared with conceptual translation

A:Molecule type: mRNA

A;Residues: 1-32, 'Q', 34, 'LPDASYPGAYPAGTPCLSWTAPPATMEHVELIRSTCTWSLRTQ', 86-104, 'A', 106, 'M'
A;Cross-references: GB:M64303; NID:G413862
A;Note: this translation is not annotated in GenBank entry HUMGALBIN, release 113.0
C;Genetics:
A;Gene: GDB:LGALS3; MAC-2; LGALS2
A;Cross-references: GDB:127515; OMIM:137033
A;Map position: lp13-1p13
C;Superfamily: beta-galactoside-binding lectin
C;Keywords: lectin; nucleus; phosphoprotein

Query Match 96.9%; Score 1315; DB 2; Length 250;
Best Local Similarity 98.4%; Pred. No. 9.5e-85;
Matches 246; Conservative 0; Mismatches 0; Indels 4; Gaps 4;

QY 1 MADNFSLDALSGSNPNPQGWPGAGNQPAGAGGYPGASYPG-YPGQAPPAYPGQAPP 59
DB 1 MADNFSLDALSGSNPNPQGWPGAGNQPAGAGGYPGASYPGAYPGQAPP 60

QY 60 GAYHAGAPGAPGAYPGVPYPPSGPGAYPSSGQPSAPGAY-ATGPGYCAPAGPLIYPYNL 118
DB 61 GAYHAGAPGAPGAYPGVPYPPSGPGAYPSSGQPSAPGAYPATGPGYCAPAGPLIYPYNL 120

QY 119 PLPGGVPRMLITILGTVPKPNANRIALDFQRGNDVAFHF-PRFNNRRVIVCNKLDNN 177
DB 121 PLPGGVPRMLITILGTVPKPNANRIALDFQRGNDVAFHFPRFNNRRVIVCNKLDNN 180

QY 178 WGRERQSVFFESGKPKIOVLVEPDHFKVAVNDAH-LOYNHVRVKLNLSKLGISGDI 236
DB 181 WGRERQSVFFESGKPKIOVLVEPDHFKVAVNDAHLLOYNHVRVKLNLSKLGISGDI 240

QY 237 DLTSASYTMI 246
DB 241 DLTSASYTMI 250

RESULT 2
A28651
galactose-specific lectin - mouse
N;Alternate names: carbohydrate-binding protein 35; IgE-binding protein; lectin L-34; Ma
C;Species: Mus musculus (house mouse)
C;Date: 28-Aug-1989 #sequence_revision 10-Feb-1995 #text_change 20-Aug-1999
C;Accession: S08537; A28651; A37385; A35185
R;Cherayil, B.J.; Weiner, S.J.; Pillai, S.
J. Exp. Med. 170, 1959-1972, 1989
A;Title: The Mac-2 antigen is a galactose-specific lectin that binds IgE.
A;Reference number: S08537; MUID:90063462; PMID:2584931
A;Accession: S08537
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: mRNA
A;Residues: 1-264 <CHE>
A;Cross-references: EMBL:X16834; NID:G52986; PIDN:CAA34736.1; PID:G52987
A;Note: this sequence was submitted to the EMBL Data Library, Oct-1989
R;Jia, S.; Wang, J.L. 6009-6011, 1988
J. Biol. Chem. 263, 6009-6011, 1988
A;Title: Carbohydrate binding protein 35. Complementary DNA sequence reveals homology w
A;Reference number: A28651; MUID:88198129; PMID:3360772
A;Accession: A28651
A;Molecule type: mRNA
A;Residues: 'R', 3-264 <JIA>
R;Cross-references: EMBL:J03723
R;Raz, A.; Pazerini, G.; Carmi, P.
Cancer Res. 49, 3489-3493, 1989
A;Title: Identification of the metastasis-associated, galactoside-binding lectin as a ch
A;Reference number: A37385; MUID:89275058; PMID:2525069
A;Accession: A37385
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-3, 'T', 5-91, 'ST', 94-109, 'SAP', 113-264 <RAZ>
A;Cross-references: GB:X16074; NID:G52850; PIDN:CAA34206.1; PID:G52851
A;Note: authors translated the codon GAA for residue 219 as Ala, GAC for residue 221 as
R;Woo, H.J.; Shaw, L.M.; Messler, J.M.; Mercurio, A.M.
J. Biol. Chem. 265, 7097-7099, 1990
A;Title: The major non-integrin laminin binding protein of macrophages is identical to d

A;Reference number: A35185; MUID:90236991; PMID:2332426
A;Accession: A35185
A;Molecule type: Protein
A;Residues: 159-163;166-175;214-226 <WOO>
C;Superfamily: beta-galactoside-binding lectin
C;Keywords: lectin; phosphoprotein

Query Match 79.7%; Score 1082; DB 2; Length 264;
Best Local Similarity 78.0%; Pred. No. 1.7e-68;
Matches 209; Conservative 16; Mismatches 17; Indels 26; Gaps 8;

QY 1 MADNFSLDALSGSNPNPQGWPGAGNQPAGAGGYPGASYPG-YPGQAPPAYPGQAPP 59
DB 1 MADNFSLDALSGSNPNPQGYPGAGNQP-GAGGYPGAAYPGAYPGQAPPAYPGQAPP 59

QY 60 GAYHG-----APGAYPGAPGAYPGVPYPPSGPGAYPSSGQPSAPGAY----- 100
DB 60 GAYPGQAPPSPAYPGTAPGAYPGTAPGAYPGQPA-PGAFP--GQPGAFAYPQSGGYP 116

QY 101 ATGPGYCAPAGPLIYPYNLPLPGGVPRMLITILGTVPKPNANRIALDFQRGNDVAFHF-PR 159
DB 117 AAGPYGVAGPLTVPYDLPLPGGVPRMLITIMGTVPKPNANRIALDFRGRNDVAFHFNP 176

QY 160 FNNRRVIVCNKLDNNGRERQSVFFESGKPKIOVLVEPDHFKVAVNDAH-LOYN 218
DB 177 FNNRRVIVCNKLDNNGRERQSVFFESGKPKIOVLVEADHFKVAVNDAHLLOYN 236

QY 219 HRVKLNLSKLGISGIDITLSASYTMI 246
DB 237 HRMKNLRISQLGISGIDITLSANHAMI 264

RESULT 3
A45983
lactose-binding lectin Mac-2 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 03-May-1996
R;Rosenberg, I.M.; Iyer, R.; Cherayil, B.; Chiodino, C.; Pillai, S.
J. Biol. Chem. 268, 12393-12400, 1993
A;Title: Structure of the murine Mac-2 gene. Splice variants encode proteins lacking
A;Reference number: A45983; MUID:93286070; PMID:8509379
A;Accession: A45983
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-264 <ROS>
A;Cross-references: GB:I08649
C;Genetics:
A;Introns: 6/3; 128/3; 158/2; 209/2; 213/3
C;Superfamily: beta-galactoside-binding lectin

Query Match 79.7%; Score 1082; DB 2; Length 264;
Best Local Similarity 78.6%; Pred. No. 1.7e-68;
Matches 209; Conservative 15; Mismatches 20; Indels 22; Gaps 8;

QY 1 MADNFSLDALSGSNPNPQGWPGAGNQPAGAGGYPGASYPG-YPGQAPPAYPGQAPP 59
DB 1 MADNFSLDALSGSNPNPQGYPGAGNQP-GAGGYPGAAYPGAYPGQAPPAYPGQAPP 59

QY 60 GAYHG--APGAYPGAPGAYPGVPYPPSGPGAYPSS-----GQPSAPGAY-----AT 102
DB 60 GAYPGQAPPSPAYPGTAPGAYPG-PTAPGAYPGTAPGAYPGQAPGAPGAYSPAGGYPAA 118

QY 103 GPGYCAPAGPLIYPYNLPLPGGVPRMLITILGTVPKPNANRIALDFQRGNDVAFHF-PRFN 161
DB 119 GPGYCAPAGPLIYPYDLPLPGGVPRMLITIMGTVPKPNANRIALDFRGRNDVAFHFNP 178

QY 162 ENNRRVIVCNKLDNNGRERQSVFFESGKPKIOVLVEPDHFKVAVNDAH-LOYNHR 220
DB 179 ENNRRVIVCNKLDNNGRERQSVFFESGKPKIOVLVEADHFKVAVNDAHLLOYNHR 238

QY 221 VKLNLSKLGISGIDITLSASYTMI 246
DB 237 HRMKNLRISQLGISGIDITLSANHAMI 264

Db 239 MKNLREISOLGISGIDITLTSANAMI 264

RESULT 4

A49688

lactose-binding lectin L-29 - dog

C:Species: Canis lupus familiaris (dog)

C:Date: 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change 24-Nov-1999

C:Accession: A49688

R:Herzmann, J.; Turk, C.W.; Atchison, R.E.; Huflejt, M.E.; Poulter, L.; Gitt, M.A.; Bur

J. Biol. Chem. 268, 26704-26711, 1993

A:Title: Primary structure of the soluble lactose binding lectin L-29 from rat and dog a

agenase.

A:Reference number: A49688; MUID:94073368; PMID:8253805

A:Accession: A49688

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-294 <HER>

A:CROSS-references: GB:L23429

C:Superfamily: beta-galactoside-binding lectin

C:Keywords: acetylated amino end

F:1/Modified site: acetylated amino end (Ala) #status experimental

Query Match 79.3%; Score 1076.5; DB 2; Length 294;

Best Local Similarity 70.8%; Pred. No. 4.6e-68;

Matches 209; Conservative 13; Mismatches 22; Indels 51; Gaps 7;

QY 2 ADNFSLDALSGSNPNPQGWPGANGNPAGAGGYPGASYP----- 42

Db 1 ADSFSLNDA-SGSGNPNPQGWPGANGNPAGAGGYPGASYPGAYPGQAPPGGYPCQAPP 59

QY 43 -----GYPCQAPPGAYPGQAPPGAYHG--APGAYPGAPAGVYVPGP----- 81

Db 60 GYPGQAPPGGYPCQAPPGAYPGQAPPGGYPCQAPPGGYVPGTAPAYPGPTA 119

QY 82 -----PSGCAYPSSGSPAPGAY-ATGPGYCAPAGLIVPNLPLPGGVPRMLITIL 133

Db 120 PGTQPGSGGAYPPGSPAGAYPAAGPGGIPAGPLTVDPDPLPGGVPRMLITIL 179

QY 134 GTVKPNANRIALDFQGNDAVAFHF-PRFENNRRVIVCTKLDNNWREERQSVFPFESG 192

Db 180 GTVRSANRLALDFRGNDVAFHFPRFENNRRVIVCTKLDNNWREERQSVFPFESG 239

QY 193 KPFKIQVLVEPDHFVKVAVNDAH-LOYNHRVKKLNEISKIGISGIDILTSASYTMI 246

Db 240 KPFKIQVLVESDHFVKVAVNDAHLLQYNHRMKNLPEISKIGISGIDILTSASYAMI 294

RESULT 5

A54889

IgE-binding protein - rat

C:Species: Rattus norvegicus (Norway rat)

C:Date: 04-Nov-1994 #sequence_revision 04-Nov-1994 #text_change 20-Aug-1999

C:Accession: A54889; A23148

R:Albrandt, K.; Orida, N.K.; Liu, F.T.

Proc. Natl. Acad. Sci. U.S.A. 84, 6859-6863, 1987

A:Title: An IgE-binding protein with a distinctive repetitive sequence and homology with

A:Reference number: A54889; MUID:88016189; PMID:2958848

A:Accession: A54889

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-262 <ALB>

A:CROSS-references: GB:J02962; NID:g203173; PIDN:AAA40828.1; PID:g203174

R:Liu, F.T.; Albrandt, K.; Mendel, E.; Kulczycki Jr., A.; Orida, N.K.

Proc. Natl. Acad. Sci. U.S.A. 82, 4100-4104, 1985

A:Title: Identification of an IgE-binding protein by molecular cloning.

A:Reference number: A23148; MUID:85216041; PMID:3858867

A:Accession: A23148

A:Molecule type: mRNA

A:Residues: 125-262 <LIU>

A:CROSS-references: GB:M13697; NID:g204727; PIDN:AAA41378.1; PID:g204728

C:Superfamily: beta-galactoside-binding lectin

C:Keywords: lectin; phosphoprotein

Query Match 79.2%; Score 1075; DB 2; Length 262;

Best Local Similarity 77.6%; Pred. No. 5.2e-68;

Matches 204; Conservative 17; Mismatches 24; Indels 18; Gaps 7;

QY 1 MADNFSLDALSGSNPNPQGWPGANGNPAGAGGYPGASYPG-YPCQAPPGAYPGQAPP 59

Db 1 MADGFSLDALSGSNPNPQGWPGANGNP-GAGGYPGASYPGAYPGQAPPGGYPCQAPP 59

QY 60 GAYHG-----APGAYPGAPAGVYVPGPPSGPGAYPSS--GQPSAPGAY-ATGPY 105

Db 60 SAYPGTGSAYPGTAPGAYPGTAPGAFPGQPGGPGAYPSAPGAYPSAPGAYPATGP 119

QY 106 GAPAGLIVPNLPLPGGVPRMLITILGTVPKNANRIALDFQGNDAVAFHF-PRFENN 164

Db 120 GAPTGLTVPYDMLPGGVPRMLITILGTVPKNANSITLNFKKGNDAVAFHFPRFENN 179

QY 165 RRVIVCTKLDNNWREERQSVFPFESGPFKIQVLVEPDHFVKVAVNDAH-LOYNHRVK 223

Db 180 RRVIVCTKLDNNWREERQSVFPFESGPFKIQVLVEADHFVKVAVNDAVHLLQYNHRMKN 239

QY 224 LNEISKIGISGIDILTSASYTMI 246

Db 240 LREISOLGISGIDITLTSASHAMI 262

RESULT 6

A54909

carbohydrate-binding protein CBP30 - hamster

N:Alternate names: S-type animal lectin CBP30

C:Species: Cricetinae gen. sp. (hamster)

C:Date: 23-Mar-1995 #sequence_revision 23-Mar-1995 #text_change 20-Aug-1999

C:Accession: A54909

R:Meul, B.; Bavumla, S.; Martin, S.R.; Hughes, R.C.

J. Biol. Chem. 269, 18250-18258, 1994

A:Title: Structure of baby hamster kidney carbohydrate-binding protein CBP30, an S-t

A:Reference number: A54909; MUID:94299346; PMID:8027086

A:Accession: A54909

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-245 <MEH>

A:CROSS-references: GB:X78879; NID:g535082; PIDN:CAA55479.1; PID:g535083

C:Superfamily: beta-galactoside-binding lectin

C:Keywords: lectin

Query Match 77.3%; Score 1049.5; DB 2; Length 245;

Best Local Similarity 81.0%; Pred. No. 2.9e-66;

Matches 204; Conservative 12; Mismatches 23; Indels 13; Gaps 8;

QY 1 MADNFSLDALSGSNPNPQGWPGANGNPAGAGGYPGASYPG-YPCQAPPGAYPGQAPP 59

Db 1 MADGFSLDALSGSNPNPQGWPGANGNP-GAGGYPGASYPGAYPGQAPPGGYPCQAPP 59

QY 60 GAYHG--APGAYPGAPAGVYVPGPPSGPGAYPSSGQPSAPGAY-ATGPYCAPAGLIVPY 116

Db 60 GAYPGTAPGAYPG-PAPGAYPGQPGASGAY-----PSAPGAYPAAGYCAPTGALTVPY 113

QY 117 NLPLPGGVPRMLITILGTVPKNANRIALDFQGNDAVAFHF-PRFENNRRVIVCTKLD 175

Db 114 KLPLAGGVPRMLITILGTVPKNANRIILNLRGNDVAFHFPRFENNRRVIVCTKLD 173

QY 176 NNWREERQSVFPFESGPFKIQVLVEPDHFVKVAVNDAH-LOYNHRVKKLNEISKIGISG 234

Db 174 NNWREERQSVFPFESGPFKIQVLVEADHFVKVAVNDAHLLQYNHRMKNLREINQMEISG 233

QY 235 DIDLTSASYTMI 246

Db 234 DITLTSAPATMI 245

RESULT 7

JC4300

galectin-3 - rabbit

C:Species: Oryctolagus cuniculus (domestic rabbit)
C:Date: 16-Nov-1995 #sequence_revision 08-Feb-1996 #text_change 20-Aug-1999
C:Accession: JC4300
R:Gaudin, J.C.; Monsigny, M.; Legrand, A.
Gene 163, 249-252, 1995
A:Title: Cloning of the cDNA encoding rabbit galectin-3.
A:Reference number: JC4300; MUID:96011642; PMID:7590275
A:Accession: JC4300
A:Molecule type: mRNA
A:Residues: 1-242 <GAD>
A:Cross-references: GB:U066470; NID:g606794; PIDN:AAC48491.1; PID:g606795
A:Experimental source: vascular smooth muscle cells
A:Note: The authors translated the codon TTC for residue 155 as Leu
C:Comment: This protein has the functions on cell adhesion and proliferation. It is a su
C:Genetics:
A:Gene: Igals3
C:Superfamily: beta-galactoside-binding lectin
C:Keywords: muscle

Query Match 75.5% Score 1024; DB 2; Length 242;
Best Local Similarity 78.8%; Pred. No. 1.7e-64;
Matches 197; Conservative 15; Mismatches 26; Indels 12; Gaps 7;
QY 1 MADNFSLDALSGSNPNQPGWAGNQPGAGGYPGCAATGPGAYPGQAPP 59
DB 1 MADGFSLDALSGSGHPNQCWPGWQPGAGGYPGCAATGPGAYPGQAPP 59
QY 60 GAYGAPGAYPGAPGVPYPPGPGGAYPSSGQPSAPGAY-ATGPGAGAGPLIVPNL 118
DB 60 GPYPG-PPGAYP-----GAYPGQPGGPGAYPSPGQPSAGAYPLVPYDL 112
QY 119 PLPGGVPRMLITILGTVPKPNANRIALDFQNDVAFHF-PRFNENRRVIVCTKLDNN 177
DB 113 PLPGGVPRMLITIVGTVPKPNANRIALDFKRGNDVAFHFENFRNENRRVIVCTKVDNN 172
QY 178 WGREERQVFPFESGKPKFQIVLEPDHFKAIVNDAH-LQVNRHVKKLNKISGLIGSDI 236
DB 173 WGREERQTFPFEPKPKFQIVLEPDHFKAIVNDAHLLQVNRHVRNKLKISGLIGSDI 232
QY 237 DLTSASYTMI 246
DB 233 QLTSASHAMI 242

RESULT 8
S08576
lectin - mouse (fragment)
C:Species: Mus musculus (house mouse)
C:Date: 02-Dec-1993 #sequence_revision 10-Nov-1995 #text_change 03-May-1996
C:Accession: S08576
R:Raz, A.; Carmi, P.; Pazerini, G.
Cancer Res. 48, 645-649, 1988
A:Title: Expression of two different endogenous galactoside-binding lectins sharing sequ
A:Reference number: S07162; MUID:88080093; PMID:3335026
A:Accession: S08576
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-139 <RAZ>
C:Superfamily: beta-galactoside-binding lectin

Query Match 32.2% Score 437; DB 2; Length 139;
Best Local Similarity 75.9%; Pred. No. 7.2e-24;
Matches 85; Conservative 6; Mismatches 19; Indels 2; Gaps 2;
QY 104 PYGAPAGPLIVPNLPLPGGVPRMLITILGTVPKPNANRIALDFQNDVAFHF-PRFNE 162
DB 22 PLWCPRWTVDVYDLPLPGGVPRMLITIVGTVPKPNANRIALDFRQNDVAFHFPRFNE 81
QY 163 NNRVIVCTNKLDNNWGREERQSVFPFESGKPKFQIVLEPDHFKAIVNDAH 214
DB 82 NNRVIVCTNKLDNNWGREERQSVFPFESGKPKFQIVLEPDHFKAIVNDAH 132

RESULT 9
A55664
lectin L-36 - pig
C:Species: Sus scrofa domestica (domestic pig)
C:Date: 11-Aug-1995 #sequence_revision 11-Aug-1995 #text_change 29-Sep-1999
C:Accession: A55664
R:Chiu, M.L.; Parry, D.A.D.; Feldman, S.R.; Klapper, D.G.; O'Keefe, E.J.
J. Biol. Chem. 269, 31770-31776, 1994
A:Title: An adherens junction protein is a member of the family of lactose-binding le
A:Reference number: A55664; MUID:95081129; PMID:7989350
A:Accession: A55664
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-323 <CHI>
A:Cross-references: GB:X79303; NID:g623345; PIDN:CAA55884.1; PID:g623346
C:Superfamily: lactose-binding lectin L-36

Query Match 18.7% Score 254; DB 2; Length 323;
Best Local Similarity 37.6%; Pred. No. 9.8e-11;
Matches 68; Conservative 22; Mismatches 77; Indels 14; Gaps 8;
QY 71 GAPAGVYPPGPGGPGAYPSSGQPSAPGAYATGPGYAPAGPLIVPNLPLPGGVPRMLI 130
DB 152 GQAPS--PGMPNPG-YPGPKHNOQPCNLPCMECAPTFNPVYKTRLOGLVARRTI 208
QY 131 TILGTVPKPNANRIALDFQNG--DVAHF-PRFNENRRVIVCTNKLDNNWGREERQSVF 187
DB 209 VIKGYVPPSGKSLVINFKVSGSDVALHINPRLTEG---IVVRNSYLNGKWAERKSSF 265
QY 188 -PFESGKPKFQIVLEPDHFKAIVNDAH-LQVNRHVKKLNKISGLIGSDITLSASYTM 245
DB 266 NPFAPQYFDLSIRCGLDKRFKYGANGHOLFDFSHRUSNFCQGVDTLEIQGVDTL---SYVQ 322
QY 246 I 246
DB 323 I 323

RESULT 10
A55932
galectin-5 - rat
N:Alternate names: beta-galactoside binding lectin
C:Species: Rattus norvegicus (Norway rat)
C:Date: 23-Mar-1995 #sequence_revision 05-Apr-1995 #text_change 21-Jan-2000
C:Accession: A55932; PX0077
R:Gitt, M.A.; Wiser, M.F.; Leffler, H.; Herrmann, J.; Xia, Y.R.; Massa, S.M.; Cooper,
J. Biol. Chem. 270, 5032-5038, 1995
A:Title: Sequence and mapping of galectin-5, a beta-galactoside-binding lectin, found
A:Reference number: A55932; MUID:95197487; PMID:7890611
A:Accession: A55932
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-145 <GIT>
A:Cross-references: GB:L36862; NID:g727175; PIDN:AAC42050.1; PID:g727176
R:Jung, S.K.; Fujimoto, D.
J. Biochem. 116, 547-553, 1994
A:Title: A novel beta-galactoside-binding lectin in adult rat kidney.
A:Reference number: PX0077; MUID:95155264; PMID:7852273
A:Accession: PX0077
A:Molecule type: protein
A:Residues: 7, 'p', 9-10, 'T', 12-19, 'X', 21-25; 30-42; 109-111, 'N', 113, 'H', 115, 'VS', 118-123
A:Experimental source: kidney
C:Comment: This protein exhibits activity to various saccharides and binds to Engelbr
C:Genetics:
A:Gene: LGALS5
C:Superfamily: beta-galactoside-binding lectin
C:Keywords: acetylated amino end; lectin; monomer
F:2/Modified site: acetylated amino end (Ser) (in mature form) #status experimental

Query Match 18.5% Score 250.5; DB 2; Length 145;
Best Local Similarity 40.4%; Pred. No. 7.3e-11;
Matches 55; Conservative 26; Mismatches 48; Indels 7; Gaps 4;

QY 108 PAGLLVYVNLPLPGVVPRLMILITILGTVKPNANRIALDFQGNDAVAFHF-PRFNNRR 166
Db 9 PYPNLAVFFFTSINGLYPSKISIVISGVVLSDAKRFQINLRGCGDIAFLNPRFEN--- 65
QY 167 VIVCNKTLKDNNGREERQ--SVFPESGPKFKIQVLVDPDFKFAVNDAIL-QYNHRVKK 223
Db 66 AVVRTQINNNGPERSLPSMPFSRQRFQSVWLCEGHCFAVNDQHCICEYSHRLMN 125
QY 224 LNEISKLGISGDIIDT 239
Db 126 LPDINTLEVAGDIQT 141
RESULT 11
A6631
lactose-binding lectin L-36 - rat
N:Alternate names: galectin-4
C:Species: Rattus norvegicus (Norway rat)
C>Date: 21-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 29-Sep-1999
C:Accession: A6631; S69096
R:Oda, Y.; Herrmann, J.; Gitt, M.A.; Turck, C.W.; Burlingame, A.L.; Barondes, S.H.; Left
J. Biol. Chem. 268, 5929-5939, 1993
A:Title: Soluble lactose-binding lectin from rat intestine with two different carbohydrate
A:Reference number: A46631; MUID:93194902; PMID:8449956
A:Accession: A6631
A:Status: preliminary
A:Molecule type: nucleic acid
A:Residues: 1-324 <ODA>
A:Cross-references: GB:M73553; NID:g294571; PIDN:AAA41505.1; PID:g294572
A:Experimental source: Intestine
A:Note: sequence extracted from NCBI backbone (NCBIN:128409, NCBIP:128410)
R:Tardy, F.; Deviller, P.; Louisot, P.; Martin, A.
FEBS Lett. 359, 169-172, 1995
A:Title: Purification and characterization of the N-terminal domain of galectin-4 from
A:Reference number: S69096; MUID:95172227; PMID:7867792
A:Accession: S69096
A:Molecule type: protein
A:Residues: 13-37;44-50,'E',52-66 <TAR>
C:Superfamily: lactose-binding lectin L-36
C:Keywords: lectin
Query Match 17.4%; Score 236.5; DB 2; Length 324;
Best Local Similarity 35.2%; Pred. No. 1.6e-09;
Matches 68; Conservative 25; Mismatches 63; Indels 37; Gaps 10;
QY 71 GAPAGVYVPGPPSGPAGYPSGQPSAPGAYATGPYCAP-----AGPLI-----VYNL 118
Db 152 GOPAASQYPGTWTIP-AYPSAG-----YNPQMNSLPVMAGPPFNPVYVG 198
QY 119 PLPGVVPRLMILITILGTVKPNANRIALDFQGN--DVAFHF-PRFNNRRVIVCNKLD 175
Db 199 TLQGLTARRTIIKGYLLPTAKNLIINFKVGTGDIQAFHNPRIQD---CVVRNSYMN 254
QY 176 NNGREERQSVF-PPESGPKFKIQVLVDPDFKFAVNDAIL-QYNHRVKKLNEISKLGIS 233
Db 255 GSWGSEERKIPNPGAGQFFDLIRCGTDRFKVPFANGQHLDFDSHRFQAFQVDMLEIK 314
QY 234 GDIDLTASATYMI 246
Db 315 GDITL---SYVQI 324
RESULT 12
JC6147
prostate carcinoma tumor antigen 1 - human
C:Species: Homo sapiens (man)
C>Date: 02-Sep-1997 #sequence_revision 05-Sep-1997 #text_change 29-Sep-1999
C:Accession: JC6147
R:Su, Z.Z.; Lin, J.; Shen, R.; Fisher, P.E.; Goldstein, N.I.; Fisher, P.B.
Proc. Natl. Acad. Sci. U.S.A. 93, 7252-7257, 1996
A:Title: Surface-epitope masking and expression cloning identifies the human prostate ca
A:Reference number: JC6147; MUID:96293510; PMID:8692978
A:Accession: JC6147

A:Molecule type: mRNA
A:Residues: 1-317 <SUA>
A:Cross-references: GB:L78132; NID:g1932711; PIDN:AA51605.1; PID:g1932712
C:Comment: This protein is a therapeutic reagent for intervention in pervasive and fa
tein is a member of the galectin family.
C:Superfamily: lactose-binding lectin L-36
C:Keywords: tumor
Query Match 16.5%; Score 223.5; DB 2; Length 317;
Best Local Similarity 39.3%; Pred. No. 1.3e-08;
Matches 55; Conservative 23; Mismatches 51; Indels 11; Gaps 5;
QY 113 IVPYNLPLPGVVPRLMILITILGTVKPNANRIALDFQGN-----DVAFHF-PRFNNRR 165
Db 16 VIPFVGTTIPDQDGLTVIRGHVPSDADRFQVDFQNGSSVVRPRADVAFHNPFRKRAG- 74
QY 166 RVIVCNKTLKDNNGREERQSVFPESGPKFKIQVLVDPDFKFAVNDAIL-QYNHRVKKL 224
Db 75 -CIVCNLTLINEKNGREETIDTPFKREKSFETIVMLKDKFQVAVNGKHTLLYGHRIGP- 132
QY 225 NEISKLGISGDIIDLTASATY 244
Db 133 EKIDTLGIYGVKNIHSIGFS 152
RESULT 13
A55975
galectin-8 - rat
C:Species: Rattus norvegicus (Norway rat)
C>Date: 23-Mar-1995 #sequence_revision 05-Apr-1995 #text_change 29-Sep-1999
C:Accession: A55975
R:Hadari, Y.R.; Paz, K.; Dekel, R.; Mestrovic, T.; Accili, D.; Zick, Y.
J. Biol. Chem. 270, 3447-3453, 1995
A:Title: Galectin-8. A new rat lectin, related to galectin-4.
A:Reference number: A55975; MUID:95155445; PMID:7852431
A:Accession: A55975
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-316 <HAD>
A:Cross-references: GB:U09824; NID:g717031; PIDN:AAA66359.1; PID:g717032
C:Superfamily: lactose-binding lectin L-36
Query Match 16.1%; Score 218.5; DB 2; Length 316;
Best Local Similarity 39.9%; Pred. No. 2.8e-08;
Matches 55; Conservative 18; Mismatches 54; Indels 11; Gaps 5;
QY 114 VYNLPLPGVVPRLMILITILGTVKPNANRIALDFQGN-----DVAFHF-PRFNNRR 166
Db 16 IPYVSTITEQLKPGSLIVIRGHVPKDSERFQVDFQNGSLKPRADVAFHNPFRKRSN-- 73
QY 167 VIVCNKTLKDNNGREERQSVFPESGPKFKIQVLVDPDFKFAVNDAIL-QYNHRVKKLN 225
Db 74 CIVCNLTLINEKNGREETIDTPFKREKSFETIVMLKDKFQVAVNGKHTLLYAHRIKP-E 132
QY 226 EISKLGISGDIIDLTASATY 243
Db 133 KIDTLGIYGVKNIHSIGF 150
RESULT 14
I55469
galectin-7 - human
C:Species: Homo sapiens (man)
C>Date: 24-May-1996 #sequence_revision 24-May-1996 #text_change 21-Jul-2000
C:Accession: I55469
R:Madsen, P.; Rasmussen, H.H.; Flint, T.; Gromov, P.; Kruse, T.A.; Honore, B.; Vorum,
J. Biol. Chem. 270, 5823-5829, 1995
A:Title: Cloning, expression, and chromosome mapping of human galectin-7.
A:Reference number: I55469; MUID:95197604; PMID:7534301
A:Accession: I55469
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-136 <RES>

A; Cross-references: GB:I07769; NID:gl82131; PIDN:AAA67899.1; PID:gl82132
C; Genetics:
A; Gene: GDB:LGALS7
A; Cross-references: GDB:S78907; OMIM:600615
A; Map position: 19pter-19qter
C; Superfamily: beta-galactoside-binding lectin

Query Match 15.5%; Score 211; DB 2; Length 136;
Best Local Similarity 35.3%; Pred. No. 3.8e-08;
Matches 47; Conservative 28; Mismatches 48; Indels 10; Gaps 5;

QY 114 VPVNLPLGGVWPRMLITILGTVPKPNRIALDF---QRGNDVAHFH-PREFNNRRVI 168
||| : : : | : : ||| : : : : : : : : : : : :
Db 4 VPHKSLLPEIGIRGTVLRIGLVPPNARSFHVNLGC EEGSDAALHFNRLDTSE--V 60

QY 169 VCNTKLDDNNGREROSVFPPFGSKPKIQVLVEPDHFKVAVNDA-HLQVNHRVKKLNEI 227
||| : : : ||| : : : : : : : : : : : : : : : : :
Db 61 VFNSKEQSGNGREERGPGVFPQRCQPFVLIISD DGFKA VVGDAQYHHFRHL-PLARV 119

QY 228 SKLGISGDIDLTS 240
: : : ||| : | |
Db 120 RLVEVGDDVOLDS 132

RESULT 15
CGB07S
collagen alpha I(III) chain - bovine
C; Species: Bos primigenius taurus (cattle)
C; Date: 04-Dec-1986 #sequence_revision 04-Dec-1986 #text_change 07-May-1999
C; Accession: A02862; A38001; A38002; A38003; A38004; A38005; S71946
R; Fietzek, P.P.; Allmann, H.; Rauterberg, J.; Henkel, W.; Wachter, E.; Kuehn, K.
Hoppe-Seyler's Z. Physiol. Chem. 360, 809-820, 1979
A; Title: The covalent structure of calf skin type III collagen. I. The amino acid sequence of the triple helix.
A; Reference number: A02862; MUID:80026026; PMID:488906
A; Accession: A02862
A; Molecule type: protein
A; Residues: 1-242 <FIE>
R; Dewes, H.; Fietzek, P.P.; Kuehn, K.
Hoppe-Seyler's Z. Physiol. Chem. 360, 821-832, 1979
A; Title: The covalent structure of calf skin type III collagen. II. The amino acid sequence of the triple helix.
A; Reference number: A38001; MUID:80026027; PMID:488907
A; Accession: A38001
A; Molecule type: protein
A; Residues: 243-422 <DEWI>
R; Bantz, H.; Fietzek, P.P.; Kuehn, K.
Hoppe-Seyler's Z. Physiol. Chem. 360, 833-840, 1979
A; Title: The covalent structure of calf skin type III collagen. III. The amino acid sequence of the triple helix.
A; Reference number: A38002; MUID:80026028; PMID:488908
A; Accession: A38002
A; Molecule type: protein
A; Residues: 423-571 <BEN>
R; Lang, H.; Glanville, R.W.; Fietzek, P.P.; Kuehn, K.
Hoppe-Seyler's Z. Physiol. Chem. 360, 841-850, 1979
A; Title: The covalent structure of calf skin type III collagen. IV. The amino acid sequence of the triple helix.
A; Reference number: A38003; MUID:80026029; PMID:488909
A; Accession: A38003
A; Molecule type: protein
A; Residues: 572-808 <LAN>
R; Dewes, H.; Fietzek, P.P.; Kuehn, K.
Hoppe-Seyler's Z. Physiol. Chem. 360, 851-860, 1979
A; Title: The covalent structure of calf skin type III collagen. V. The amino acid sequence of the triple helix.
A; Reference number: A38004; MUID:80026030; PMID:488910
A; Accession: A38004
A; Molecule type: protein
A; Residues: 809-947 <DEW2>
R; Allmann, H.; Fietzek, P.P.; Glanville, R.W.; Kuehn, K.
Hoppe-Seyler's Z. Physiol. Chem. 360, 861-868, 1979
A; Title: The covalent structure of calf skin type III collagen. VI. The amino acid sequence of the triple helix.
A; Reference number: A38005; MUID:80026031; PMID:488911
A; Accession: A38005
A; Molecule type: protein
A; Residues: 948-1049 <ALL>
A; Experimental source: skin

GenCore version 5.1.4_p5_4578
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OM protein - protein search, using sw model

Run on: May 20, 2003, 12:15:10 ; Search time 11 Seconds
(without alignments)
927.562 Million cell updates/sec

Title: US-09-297-040-4

Perfect score: 1357

Sequence: 1 MADNFSLHDLGSGNPNPQ.....ISKLGISGIDILTSASYPMI 246

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 112892 seqs, 41476328 residues

Total number of hits satisfying chosen parameters: 112892

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : SwissProt_40:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1310	96.5	249	1	LEG3_HUMAN
2	1091	80.4	295	1	LEG3_CANFA
3	1077	79.4	263	1	LEG3_MOUSE
4	1074	79.1	261	1	LEG3_RAT
5	1044.5	77.0	244	1	LEG3_CRILLO
6	1019	75.1	241	1	LEG3_RABIT
7	299	22.0	353	1	LEG9_MOUSE
8	289	21.3	355	1	LEG9_HUMAN
9	276.5	20.4	354	1	LEG9_RAT
10	254	18.7	323	1	LEG4_PIG
11	250.5	18.5	144	1	LEG5_RAT
12	245	18.1	301	1	LEG6_MOUSE
13	236.5	17.4	324	1	LEG4_RAT
14	228.5	16.8	316	1	LEG8_HUMAN
15	218.5	16.1	316	1	LEG8_RAT
16	215.5	15.9	323	1	LEG4_HUMAN
17	211	15.5	135	1	LEG7_HUMAN
18	207.5	15.3	316	1	LEG8_MOUSE
19	196.5	14.5	466	1	ANK7_HUMAN
20	193	14.2	1049	1	CA13_BOVIN
21	192.5	14.2	463	1	ANK7_MOUSE
22	188.5	13.9	279	1	LEG3_CAEEL
23	188	13.9	467	1	CBPA_DICDI
24	187.5	13.8	283	1	LEG1_HAECO
25	187	13.8	684	1	CA39_HUMAN
26	185	13.6	744	1	CA18_HUMAN
27	184	13.6	135	1	LEG7_RAT
28	183.5	13.5	743	1	CA18_MOUSE
29	181	13.3	336	1	LEG8_HUMAN
30	180	13.3	744	1	CA18_RABIT
31	179	13.2	316	1	CC12_CAEEL
32	179	13.2	316	1	CC13_CAEEL
33	174.5	12.9	296	1	CC01_CAEEL

34	174.5	12.9	299	1	CC34_CAEEL
35	173.5	12.8	266	1	YXWK_CAEEL
36	173.5	12.8	512	1	ANX7_XENLA
37	173.5	12.8	754	1	CA54_CANFA
38	173	12.7	135	1	LEG7_MOUSE
39	173	12.7	675	1	CA39_CHICK
40	172.5	12.7	1464	1	CA13_MOUSE
41	172	12.7	301	1	CC02_CAEEL
42	171.5	12.6	464	1	S3A2_HUMAN
43	171.5	12.6	1712	1	CA24_HUMAN
44	170	12.5	1466	1	CA13_HUMAN
45	169.5	12.5	302	1	CCDC_CAEEL

P34687	caenorhabdi
Q21184	caenorhabdi
Q92125	xenopus lae
Q28247	canis famill
O54974	mus musculus
P32017	gallus gall
P17526	caenorhabdi
P17556	caenorhabdi
Q15428	homo sapien
P08572	homo sapien
P02461	homo sapien
P17657	caenorhabdi

ALIGNMENTS

RESULT 1					
LEG3_HUMAN					
ID	LEG3_HUMAN	STANDARD;	PRT;	249	AA.
AC	P17931; Q16005; Q96J47;				
DT	01-NOV-1990 (Rel. 16, Created)				
DT	01-NOV-1995 (Rel. 32, Last sequence update)				
DT	15-JUN-2002 (Rel. 41, Last annotation update)				
DE	Galectin-3 (Galactose-specific lectin 3) (MAC-2 antigen) (IgE-binding protein) (35 kDa lectin) (Carbohydrate binding protein 35) (CBP 35)				
DE	(Laminin-binding protein) (Lectin L-29) (L-31) (Galactoside-binding protein) (GALBP).				
GN	LGALS3 OR MAC2				
OS	Homo sapiens (Human).				
OC	Eukaryota; Metazoa; Chordata; Cranialata; Vertebrata; Euteleostomi;				
OC	Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.				
OX	NCBI_TaxID=9606;				
RN	[1]				
RP	SEQUENCE FROM N.A.				
RX	MEDLINE=91084480; PubMed=2261464;				
RA	Robertson M.W., Albrandt K., Keller D., Liu F.-T.;				
RT	"Human IgE-binding protein: a soluble lectin exhibiting a highly conserved interspecies sequence and differential recognition of IgE glycoforms.";				
RT	Biochemistry 29:8093-8100(1990).				
RL	[2]				
RN	SEQUENCE FROM N.A.				
RP	TISSUE-Carcinoma;				
RX	MEDLINE=90384999; PubMed=2402511;				
RA	Cherayil B., Chaitovitz S., Wong C., Pillai S.;				
RT	"Molecular cloning of a human macrophage lectin specific for galactose.";				
RT	Proc. Natl. Acad. Sci. U.S.A. 87:7324-7328(1990).				
RL	[3]				
RN	SEQUENCE FROM N.A.				
RP	MEDLINE=91216471; PubMed=2022338;				
RX	Oda Y., Leffler H., Sakakura Y., Kasai K.I., Barondes S.H.;				
RT	"Human breast carcinoma cDNA encoding a galactoside-binding lectin homologous to mouse Mac-2 antigen.";				
RT	Gene 99:279-283(1991).				
RN	[4]				
RP	SEQUENCE FROM N.A.				
RX	MEDLINE=91183475; PubMed=2009535;				
RA	Raz A., Carmi P., Raz T., Hogan V., Mohamed A., Wolman S.R.;				
RT	"Molecular cloning and chromosomal mapping of a human galactoside-binding protein.";				
RT	Cancer Res. 51:2173-2178(1991).				
RN	[5]				
RP	SEQUENCE FROM N.A., AND SUBCELLULAR LOCATION.				
RX	MEDLINE=9334518; PubMed=7682704;				
RA	Lotz M.M., Andrews C.W. Jr., Korzelius C.A., Lee E.C.,				
RT	Steele G.D. Jr., Clarke A., Mercurio A.M.;				
RT	"Decreased expression of Mac-2 (carbohydrate binding protein 35) and loss of its nuclear localization are associated with the neoplastic progression of colon carcinoma.";				
RT	Proc. Natl. Acad. Sci. U.S.A. 90:3466-3470(1993).				
RL	[6]				

RP SEQUENCE FROM N.A.
RC TISSUE-Gastric adenocarcinoma;
RA Kato S.;
RT "Human galectin-3 full-length cDNA";
RL Submitted (AUG-1997) to the EMBL/GenBank/DBJ databases.
RN [7]
RP SEQUENCE FROM N.A.
RA Kadrofske M.M., Wang J.L.;
RL Submitted (OCT-1997) to the EMBL/GenBank/DBJ databases.
RN [8]
RP SEQUENCE FROM N.A.
RA Strausberg R.;
RL Submitted (DEC-2000) to the EMBL/GenBank/DBJ databases.
RN [9]
RP PHOSPHORYLATION
RA MEDLINE-94075369; PubMed-8253806;
RA Huflejt M.E., Turck C.W., Lindstedt R., Barondes S.H., Leffler H.;
RT "L-29, a soluble lactose-binding lectin, is phosphorylated on serine
6 and serine 12 in vivo and by casein kinase I.";
J. Biol. Chem. 268:26712-26718(1993).
RN [10]
RP X-RAY CRYSTALLOGRAPHY (2.1 ANGSTROMS) OF 113-249.
RA MEDLINE-98250755; PubMed-9582341;
RA Seetharaman J., Kanigsberg A., Slaaby R., Leffler H., Barondes S.H.,
RA Rini J.M.;
RT "X-ray crystal structure of the human galectin-3 carbohydrate
recognition domain at 2.1-A resolution.";
J. Biol. Chem. 273:13047-13052(1998).
CC -1- FUNCTION: GALACTOSE-SPECIFIC LECTIN WHICH BINDS IGE.
CC -1- SUBUNIT: PROBABLY FORMS HOMO- OR HETERODIMERS.
CC -1- SUBCELLULAR LOCATION: NUCLEAR, CYTOPLASMIC IN ADENOMAS AND
CC -1- CARCINOMAS.
CC -1- TISSUE SPECIFICITY: A MAJOR EXPRESSION IS FOUND IN THE COLONIC
CC EPITHELIUM. IT IS ALSO ABUNDANT IN THE ACTIVATED MACROPHAGES.
CC -1- SIMILARITY: THE C-TERMINAL DOMAIN BELONGS TO THE GALAPTIN
CC (S-LECTIN) FAMILY.
CC -----
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CC or send an email to license@sib-sib.ch).
CC -----
DR EMBL; M57710; AAA35607.1; -;
DR EMBL; M35368; AAA8086.1; -;
DR EMBL; M36682; AAA36163.1; -;
DR EMBL; M64303; -; NOT_ANNOTATED_CDS.
DR EMBL; S59012; AAB26229.1; -;
DR EMBL; AB006780; BAA22164.1; -;
DR EMBL; AF031425; AAB86584.1; -;
DR EMBL; AF031423; AAB86584.1; JOINED.
DR EMBL; AF031422; AAB86584.1; JOINED.
DR EMBL; AF031424; AAB86584.1; JOINED.
DR EMBL; BC001120; AAO11120.1; -;
DR PIR; A35820; A35820.
DR PIR; A36071; A36071.
DR PIR; JQ0916; JQ0916.
DR PDB; 1A3K; 15-JUL-98.
DR Genew; HGNC:6563; LGALS3.
DR MIM; 153619; -;
DR InterPro; IPR001079; Galectin.
DR Pfam; PF00337; Gal-bind_lectin; 1.
DR SMART; SM00276; GLECT; 1.
DR PROSITE; PS00309; GALAPTIN; 1.
KW Galaptin; Lectin; IGE-binding protein; Repeat; Phosphorylation;
KW Acetylation; Nuclear protein; Polymorphism; 3D-structure.
FT INIT_MET 0 0 BY SIMILARITY.
FT MOD_RES 1 1 ACETYLATION (BY SIMILARITY).
FT MOD_RES 5 5 PHOSPHORYLATION.
FT MOD_RES 11 11 PHOSPHORYLATION (MINOR).
FT

FT DOMAIN 35 108 8 X 9 AA TANDEM REPEATS OF Y-P-G-X(3)-P-
FT REPEAT 35 43 G-A.
FT REPEAT 44 52 1.
FT REPEAT 53 61 2.
FT REPEAT 62 68 3.
FT REPEAT 69 77 4 (APPROXIMATE).
FT REPEAT 78 87 5.
FT REPEAT 88 99 6 (APPROXIMATE).
FT REPEAT 100 108 7 (APPROXIMATE).
FT REPEAT 117 129 8 (APPROXIMATE).
FT DOMAIN 117 249 GALAPTIN.
FT DISULFID 172 186 INTERCHAIN (BY SIMILARITY).
FT BINDING 180 186 BETA-GALACTOSIDE (BY SIMILARITY).
FT VARIANT 63 63 H -> P.
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FT VARIANT 97 97 P -> T.
FT /FTID=VAR_012989.
FT CONFLICT 32 51 AGYPCASIPGAYPGQAPPG -> QGLPRGFLSWGLPRAGT
FT PR (IN REF. 2).
FT CONFLICT 87 87 MISSING (IN REF. 2).
FT CONFLICT 231 231 S -> R (IN REF. 4).
FT CONFLICT 249 249 S -> R (IN REF. 4).
SQ SEQUENCE 249 AA; 26057 MW; ACB542752D137650 CRC64;
Query Match 96.5%; Score 1310; DB 1; Length 249;
Best Local Similarity 98.4%; Pred. No. 2.4e-74;
Matches 245; Conservative 0; Mismatches 0; Indels 4; Gaps 4;
QY 2 ADNFSLDALSGSGNPNQGWPGWAGNQAGAGYPCASYPG-YPGQAPPGAYPGQAPPG 60
DB 1 ADNFSLDALSGSGNPNQGWPGWAGNQAGAGYPCASYPGAYPGQAPPGAYPGQAPPG 60
QY 61 AYHGAPGAYGAPGAYPGYPPGSGGAYPSGGQSPAGAY-ATGPGAPAGPLIVPNLP 119
DB 61 AYHGAPGAYGAPGAYPGYPPGSGGAYPSGGQSPAGAYPATGPGYAPAGPLIVPNLP 120
QY 120 LPGGVPRMLITLIGTVKPNANRIALDFQGNDAVFHF-PRENENRRVIVCNTKLDNNW 178
DB 121 LPGGVPRMLITLIGTVKPNANRIALDFQGNDAVFHFNRNENRRVIVCNTKLDNNW 180
QY 179 GREERQSVFFESGKPKIQVLVEPDHFKVAVNDAN-LOYNHRVKLNELSKLGISGDID 237
DB 181 GREERQSVFFESGKPKIQVLVEPDHFKVAVNDANHLQYNHRVKLNELSKLGISGDID 240
QY 238 LTSASYTMI 246
DB 241 LTSASYTMI 249
RESULT 2
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ID LEG3_CANFA
AC P38486;
DT 01-OCT-1994 (Rel. 30, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1997 (Rel. 35, Last annotation update)
DE Galectin-3 (Galactose-specific lectin 3) (MAC-2 antigen) (IGE-binding
DE protein) (35 kDa lectin) (Carbohydrate binding protein 35) (CBP 35)
DE (Laminin-binding protein) (Lectin L-29).
GN LGALS3.
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX NCBI_TaxID=9615;
RN [1]
RP SEQUENCE OF 11-295 FROM N.A., AND PARTIAL SEQUENCE.
RC TISSUE-Kidney epithelium;
RX MEDLINE-94075368; PubMed-8253805;
RA Herrmann J., Turck C.W., Atchison R.E., Huflejt M.E., Poulter L.,
RA Gitt M.A., Burlingame A.L., Barondes S.H., Leffler H.;
RT "Primary structure of the soluble lactose binding lectin L-29 from
RT rat and dog and interaction of its non-collagenous proline-,
RT glycine-, tyrosine-rich sequence with bacterial and tissue
RT collagenase.";
J. Biol. Chem. 268:26712-26718(1993).

J. Biol. Chem. 268:26704-26711(1993).

[2]
 RL PHOSPHORYLATION.
 RA MEDLINE=94075369; PubMed=8253806;
 RX Hufelt M.E., Turk C.W., Lindstedt R., Barondes S.H., Leffler H.;
 RT "L-29, a soluble lactose-binding lectin, is phosphorylated on serine
 6 and serine 12 in vivo and by casein kinase I.";
 RL J. Biol. Chem. 268:26712-26718(1993).
 CC -1- FUNCTION: GALACTOSE-SPECIFIC LECTIN WHICH BINDS IGE.
 CC -1- SUBUNIT: PROBABLY FORMS HOMO- OR HETERODIMERS.
 CC -1- SUBCELLULAR LOCATION: NUCLEAR AND CYTOPLASMIC. MAY BE SECRETED BY
 CC A NON-CLASSICAL SECRETORY PATHWAY.
 CC -1- PTM: THE DEGREE OF PHOSPHORYLATION IS HIGHER IN THE CYTOPLASMIC
 CC FORM THAN IN THE NUCLEAR FORM.
 CC -1- SIMILARITY: THE C-TERMINAL DOMAIN BELONGS TO THE GALAPTIN
 CC (S-LECTIN) FAMILY.
 CC -----
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 CC -----
 DR EMBL; L23429; AAA16211.1; -;
 DR HSSP; P17931; 1A3K.
 DR InterPro; IPR001079; Galectin.
 DR Pfam; PF00337; Gal-bind_lectin; 1.
 DR SMART; SM00276; GLECT; 1.
 DR PROSITE; PS00309; GALAPTIN; 1.
 KW Galaptin; Lectin; IGE-binding protein; Repeat; Phosphorylation;
 KW Acetylation; Nuclear protein.
 FT INIT_MET 0
 FT MOD_RES 1 1
 FT MOD_RES 5 5
 FT MOD_RES 11 11
 FT MOD_RES 35 142
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 FT REPEAT 35 43
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 FT REPEAT 107 114
 FT REPEAT 115 123
 FT REPEAT 124 133
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 FT REPEAT 152 295
 FT DISULFID 218 218
 FT BINDING 226 232
 FT SEQUENCE 295 AA; 30199 MW; 4921327063CE41C7 CRC64;
 Query Match 80.4%; Score 1091; DB 1; Length 295;
 Best Local Similarity 71.2%; Pred. No. 8.2e-61;
 Matches 210; Conservative 13; Mismatches 22; Indels 50; Gaps 6;
 QY 2 ADNFSLDALSGNPNQGWPCAMGNPAGAGYPGASYP----- 42
 DB 1 ADSFSLDALSGNPNQGWPCAMGNPAGAGYPGASYPGAYPGQAPPGYQAPPG 60
 QY 43 -----GYPGQAPPGYQAPPGYHG--APGAYPGAPAGYPGP----- 81
 DB 61 GYPGQAPPGYQAPPGYQAPPGYQAPPGYQAPPGYQAPPGYQAPPGYQAPPG 120
 QY 82 -----PSGCAYPSSGQPSARGAY-ATGPGYAGAGPLIVPNPLPGGVPRMLITIL 133
 DB 121 PGTQPGSGGYPGPPGQPSAPGAPGAPGPGIPAGPLTVYDPLPLPGGVKPRMLITIL 180

QY 134 GTVKPNANRIALDFQNDVAFHF-PRFENNRRVIVCNTKLDNNWGREROSVFFPESG 192
 DB 181 GTVRSANLALDFKRGNDVAFHFPRFEDNKRIVCNTKLDNINWKEERQAFFESG 240
 QY 193 KPEKQVLVEPDHFHGVANDAH-LQYNHRVKKLNEISKLGISGIDLTLSASYMI 246
 DB 241 KPEKIQVLVESDHFHGVANDAHLLQYNHRMKNLPEISKLGISGIDLTLSASYMI 295

RESULT 3
 LEG3_MOUSE
 ID LEG3_MOUSE STANDARD; PRT; 263 AA.
 AC P16110;
 DT 01-APR-1990 (Rel. 14, Created)
 DT 01-NOV-1995 (Rel. 32, Last sequence update)
 DT 01-NOV-1997 (Rel. 35, Last annotation update)
 DE Galectin-3 (Galactose-specific lectin 3) (MAC-2 antigen) (IGE-binding
 DE protein) (35 kDa lectin) (Carbohydrate binding protein 35) (CBP 35)
 DE (Laminin-binding protein) (Lectin L-29) (L-34 galactoside-binding
 DE lectin).
 GN LGALS3.
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Cranialata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-DBA/2J; TISSUE-Macrophage;
 RX MEDLINE=90063462; PubMed=2584931;
 RA Cherayil B.J., Weiner S.J., Pillai S.;
 RT "The Mac-2 antigen is a galactose-specific lectin that binds IGE.";
 RL J. Exp. Med. 170:1959-1972(1989).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=88198129; PubMed=3360772;
 RA Jia S., Wang J.L.;
 RT "Carbohydrate binding protein 35. Complementary DNA sequence reveals
 RT homology with proteins of the heterogeneous nuclear RNP.";
 RL J. Biol. Chem. 263:6009-6011(1988).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=89275058; PubMed=2525069;
 RA Raz A., Pazerini G., Carmi P.;
 RT "Identification of the metastasis-associated, galactoside-binding
 RT lectin as a chimeric gene product with homology to an IGE-binding
 RT protein.";
 RL Cancer Res. 49:3489-3493(1989).
 RN [4]
 RP SEQUENCE OF 158-162; 165-174 AND 213-225.
 RX MEDLINE=90236991; PubMed=2332426;
 RA Woo H.-J., Shaw L.M., Messier J.M., Mercurio A.M.;
 RT "The major non-integrin laminin binding protein of macrophages is
 RT identical to carbohydrate binding protein 35 (Mac-2).";
 RL J. Biol. Chem. 266:18419-18422(1991).
 RN [5]
 RP DISULFIDE BOND.
 RX MEDLINE=92011585; PubMed=1917966;
 RA Woo H.-J., Lotz M.M., Jung J.U., Mercurio A.M.;
 RT "Carbohydrate-binding protein 35 (Mac-2), a laminin-binding lectin,
 RT forms functional dimers using cysteine 186.";
 RL J. Biol. Chem. 266:18419-18422(1991).
 CC -1- FUNCTION: GALACTOSE-SPECIFIC LECTIN WHICH BINDS IGE.
 CC -1- SUBUNIT: EXISTS AS SEVERAL DISTINCT SPECIES OF 35, 67 AND 80 KDA.
 CC PROBABLY FORMS HOMO- OR HETERODIMERS.
 CC -1- TISSUE SPECIFICITY: THE HIGHEST LEVELS ARE FOUND IN ACTIVATED
 CC MACROPHAGES.
 CC -1- SIMILARITY: THE C-TERMINAL DOMAIN BELONGS TO THE GALAPTIN
 CC (S-LECTIN) FAMILY.
 CC -----
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CC EMBL; X16834; CAA34736.1; -
CC EMBL; J03723; AAA37311.1; -
CC EMBL; X16074; CAA34206.1; -
CC PIR; A28651; A28651.
CC PIR; A35185; A35185.
CC PIR; S08537; S08537.
CC HSP; P17931; IAK3.
CC MGD; MGI:96778; Lgals3.
CC InterPro; IPR001079; Galectin.
CC Pfam; PF00337; Gal_bind_lectin; 1.
CC SMART; SM00276; GLECT; 1.
CC PROSITE; PS00309; GALAPTIN; 1.
CC Galaptin; Lectin; Ige-binding protein; Repeat; Phosphorylation;
KW Acetylation.
FT INIT_MET 0 0 BY SIMILARITY.
FT MOD_RES 1 1 ACETYLATION (BY SIMILARITY).
FT MOD_RES 5 5 PHOSPHORYLATION (BY CK1)
FT MOD_RES 5 5 (BY SIMILARITY).
FT DOMAIN 34 113 9 X 9 AA TANDEM REPEATS OF Y-P-G-X(3)-P-
[GS]-A.
FT REPEAT 34 42 1.
FT REPEAT 43 51 2.
FT REPEAT 52 60 3.
FT REPEAT 61 69 4.
FT REPEAT 70 78 5.
FT REPEAT 79 87 6.
FT REPEAT 88 96 7.
FT REPEAT 97 106 8.
FT REPEAT 107 113 9 (INCOMPLETE).
FT DOMAIN 131 263 GALAPTIN.
FT DISULFID 186 186 INTERCHAIN.
FT BINDING 194 200 BETA-GALACTOSIDE (BY SIMILARITY).
FT CONFLICT 1 1 A -> R (IN REF. 2).
FT CONFLICT 3 3 S -> T (IN REF. 3).
FT CONFLICT 91 92 QCS -> ST (IN REF. 3).
FT CONFLICT 109 111 GCS -> SAP (IN REF. 3).
FT CONFLICT 251 251 G -> R (IN REF. 2).
FT CONFLICT 251 251 G -> R (IN REF. 2).
FT SEQUENCE 263 AA; 27384 MW; 76C78AA0810D68EE CRC64;

Query Match 79.4%; Score 1077; DB 1; Length 263;
Best Local Similarity 77.9%; Pred. No. 5.3e-60;
Matches 208; Conservative 16; Mismatches 17; Indels 26; Gaps 8;

Qy 2 ADNFSLDALSGNPNQGWPGWGNOPACAGGYGPGASYPG-YPGQAPPGAYPGQAPPG 60
Db 1 ADSFSLDALAGSNPNQGWPGWGNOP-GAGGTPGAYPGAYPGQAPPGAYPGQAPPG 59
Qy 61 AYHG-----APGAYPGAPGAYPGYPPSPGPGAYPSGQPSAPGAY-----A 101
Db 60 AYPGQAPPSAYPGPTAPGAYPGTAPGAYPGQAP-PAFAFP--GPGAPGAYPGQSGGYP 116
Qy 102 TGPYGPAGPLIVPNLPLPGGVVPRMLITILGTVKPNANRIALDFQGNDAVFHF-PRF 160
Db 117 AGPYGVAPGLTPYDPLPLPGGVMPRLITITMGTVKPNANRIALDFRGNDAVFHFNPRF 176
Qy 161 NENNRVIVCNKTLKNNNGREOSVFPFESGKPKIQVLVPEDPHFKVAVNDAAH-LOYNH 219
Db 177 NENNRVIVCNKTDNNNGKEOSVAFPSGKPKIQVLVPEADHFKVAVNDAAHLLQYNH 236
Qy 220 RVKLNLEISKLGISGIDLTLSASTMI 246
Db 237 RMKNLREISQLGISGIDLTLSANHAMI 263
PRT; 261 AA.

RESULT 4
LEG3_RAT
ID LEG3_RAT
AC P08699;

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DT 01-JAN-1988 (Rel. 06, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1997 (Rel. 35, Last annotation update)
DE Galectin-3 (Galactose-specific lectin 3) (MAC-2 antigen) (Ige-binding
DE protein) (35 kDa lectin) (Carbohydrate binding protein 35) (CBP 35)
DE (Laminin-binding protein) (Lectin L-29).
DE LGALS3.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
SEQUENCE FROM N.A.
RP MEDLINE=88016189; PubMed=2938848;
RA Albrandt K., Orida N.K., Liu F.-T.;
RT "An Ige-binding protein with a distinctive repetitive sequence and
RT homology with an Ige receptor."
RL Proc. Natl. Acad. Sci. U.S.A. 84:6859-6863(1987).
RN [2]
SEQUENCE OF 124-261 FROM N.A.
RP MEDLINE=85216641; PubMed=3858867;
RA Liu F.-T., Albrandt K., Mendel E., Kulczycki A. Jr., Orida N.K.;
RT "Identification of an Ige-binding protein by molecular cloning."
RL Proc. Natl. Acad. Sci. U.S.A. 82:4100-4104(1985).
RN [3]
SEQUENCE OF 119-144.
RP MEDLINE=90105471; PubMed=2605254;
RA Lefler H., Maslarz F.R., Barondes S.H.;
RT "Soluble lactose-binding vertebrate lectins: a growing family."
RL Biochemistry 28:9222-9229(1989).
RN [4]
PARTIAL SEQUENCE, AND ACETYLATION.
RP MEDLINE=94075368; PubMed=8253805;
RA Herrmann J., Turck C.W., Atchison R.E., Hufleit M.E., Poulter L.,
RA Gitt M.A., Burlingame A.L., Barondes S.H., Lefler H.;
RT "Primary structure of the soluble lactose binding lectin L-29 from
RT rat and dog and interaction of its non-collagenous proline-,
RT glycine-, tyrosine-rich sequence with bacterial and tissue
RT collagenase."
J. Biol. Chem. 268:26704-26711(1993).
CC -|- FUNCTION: GALACTOSE-SPECIFIC LECTIN WHICH BINDS IGE.
CC -|- SUBUNIT: PROBABLY FORMS HOMO- OR HETERODIMERS.
CC -|- SIMILARITY: THE C-TERMINAL DOMAIN BELONGS TO THE GALAPTIN
CC (S-LECTIN) FAMILY.
CC -----
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CC or send an email to license@isb-sib.ch).

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EMBL; J02962; AAA0828.1; -
DR EMBL; M13697; AAA41378.1; -
DR PIR; A23148; A23148.
DR PIR; A54889; A54889.
DR HSP; P17931; IAK3.
DR InterPro; IPR001079; Galectin.
DR Pfam; PF00337; Gal_bind_lectin; 1.
DR SMART; SM00276; GLECT; 1.
DR PROSITE; PS00309; GALAPTIN; 1.
KW Galaptin; Lectin; Ige-binding protein; Repeat; Phosphorylation;
KW Acetylation.
FT INIT_MET 0 0
FT MOD_RES 1 1 ACETYLATION.
FT MOD_RES 5 5 PHOSPHORYLATION (BY CK1)
FT MOD_RES 5 5 (BY SIMILARITY).
FT DOMAIN 34 111 9 X 9 AA TANDEM REPEATS OF Y-P-G-X(3)-P-
[GS]-[AG].
FT REPEAT 34 42 1.
FT REPEAT 43 51 2.
FT REPEAT 52 60 3.

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FT REPEAT 61 69
FT REPEAT 70 78
FT REPEAT 79 87
FT REPEAT 88 97
FT REPEAT 98 104
FT REPEAT 105 111
FT REPEAT 129 261
FT DOMAIN 184 184
FT DISULFID 184 184
FT BINDING 192 198
FT CONFLICT 19 19
SQ SEQUENCE 261 AA; 27070 MW; EAFAL17F5EA5080D CRC64;

Query Match
Best Local Similarity 79.1%; Score 1074; DB 1; Length 261;
Matches 204; Conservative 16; Mismatches 24; Indels 18; Gaps 7;

QY 2 ADNFSLDALSGSGNPNQPGWPGANGNPGAGGYPGASYPG-YPCOAPPGAYPGQAPPG 60
DB 1 ADGFSLDALSGSGNPNQPGWPGANGNPGAGGYPGASYPG-YPCOAPPGAYPGQAPPG 59
QY 61 AYHG-----APGAYPCAPAPGVYPPGPGGAYPSS--GQSPAGAY-ATGPGY 106
DB 60 AYPGTPGSAYPGAPGAPGAPGAPGAPGAPGAPGAPGAPGAPGAPGAPGAPGAPG 119
QY 107 APAGPLIVPNPLPGGVVPRMLITILGTVKPNANRIALDFORGNDAVHF-PRFNENNR 165
DB 120 APTGLTVPYDPLPGGVNPRMLITILGTVKPNANRIALDFORGNDAVHF-PRFNENNR 179
QY 166 RIVCNTKLDNNGREOSVFPESGKPKIQVLVEPDHFKVAVNDAH-LOYNHRVKKL 224
DB 180 RIVCNTKLDNNGREOSVFPESGKPKIQVLVEPDHFKVAVNDAH-LOYNHRVKKL 224
QY 225 NEISKLGISGDIDLSASYTMI 246
DB 240 REISQIGIGDITLSASHAMI 261

RESULT 5
LEG3_CRILO
ID LEG3_CRILO STANDARD; PRT; 244 AA.
AC P47953;
DT 01-FEB-1996 (Rel. 33, Created)
DT 01-FEB-1996 (Rel. 33, Last sequence update)
DT 01-NOV-1997 (Rel. 35, Last annotation update)
DE Galectin-3 (Galactose-specific lectin 3) (MAC-2 antigen) (IgE-binding protein) (35 kDa lectin) (Carbohydrate binding protein 35) (CBP 35)
DE (Laminin-binding protein) (Lectin L-29) (CBP30).
GN LGALS3.
OS Cricetus longicaudatus (Long-tailed hamster) (Chinese hamster).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae; Cricetulus.
OC NCBI_TaxID=10030;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Kidney;
RA MEDLIN=94229546; PubMed=8027086;
RX Mehul B., Bawumia S., Martin S.R., Hughes R.C.;
RT "Structure of baby hamster kidney carbohydrate-binding protein CBP30, an S-type animal lectin."
RL J. Biol. Chem. 269:18250-18258(1994).
CC -!- FUNCTION: GALACTOSE-SPECIFIC LECTIN WHICH BINDS IGE.
CC -!- SIMILARITY: THE C-TERMINAL DOMAIN BELONGS TO THE GALAPTIN (S-LECTIN) FAMILY.
CC -----
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DR EMBL; X78879; CAA55479.1; -.
DR HSSP; PI7931; IA3K.
DR InterPro; IPR001079; Galectin.
DR Pfam; PF00337; Gal-bind_lectin; 1.
DR SMART; SM00276; GLECT; 1.
DR PROSITE; PS00309; GALAPTIN; 1.
KW Galaptin; Lectin; IgE-binding protein; Repeat; Phosphorylation;
KW Acetylation.
FT INIT_MET 0 0 BY SIMILARITY.
FT MOD_RES 1 1 ACETYLATION (BY SIMILARITY).
FT MOD_RES 5 5 PHOSPHORYLATION (BY CKI)
FT DOMAIN 34 98 (BY SIMILARITY).
FT REPEAT 34 42 1.
FT REPEAT 43 51 2.
FT REPEAT 52 60 3.
FT REPEAT 61 69 4.
FT REPEAT 70 77 5 (APPROXIMATE).
FT REPEAT 78 87 6 (APPROXIMATE).
FT REPEAT 88 98 7 (APPROXIMATE).
FT DOMAIN 112 244 GALAPTIN.
FT DISULFID 167 167 INTERCHAIN (BY SIMILARITY).
FT BINDING 175 181 BETA-GALACTOSIDE (BY SIMILARITY).
SQ SEQUENCE 244 AA; 25608 MW; 8F99B9AA0BBAYD3F CRC64;

Query Match
Best Local Similarity 77.0%; Score 1044.5; DB 1; Length 244;
Matches 203; Conservative 12; Mismatches 23; Indels 13; Gaps 8;

QY 2 ADNFSLDALSGSGNPNQPGWPGANGNPGAGGYPGASYPG-YPCOAPPGAYPGQAPPG 60
DB 1 ADGFSLDALSGSGNPNQPGWPGANGNPGAGGYPGASYPG-YPCOAPPGAYPGQAPPG 59
QY 61 AYHG--APGAYPCAPAPGVYPPGPGGAYPSSGQSPAGAY-ATGPGYAGAPGLIVPN 117
DB 60 AYPGTPAGAYPG-PAPGAYPGQPGASGAY-----PSAFGAYPAGPYGAPTALTYPK 113
QY 118 LPLPGGVPRMLITILGTVKPNANRIALDFORGNDAVHF-PRFNENNRVIVCNTKLDN 176
DB 114 LPLAGGVPRMLITINGTVKPNANRIALDFORGNDAVHF-PRFNENNRVIVCNTKLDN 173
QY 177 NMGREERQSVFPESGKPKIQVLVEPDHFKVAVNDAH-LOYNHRVKKLMEISKLGISGD 235
DB 174 NMGREERQSAFPESGKPKIQVLVEADHFKVAVNDAHLLQYNHRMKNLREINQMEISGD 233
QY 236 IDLTSASYTMI 246
DB 234 IILTSAAPTMI 244

RESULT 6
LEG3_RABIT
ID LEG3_RABIT STANDARD; PRT; 241 AA.
AC P47845;
DT 01-FEB-1996 (Rel. 33, Created)
DT 01-FEB-1996 (Rel. 33, Last sequence update)
DT 01-NOV-1997 (Rel. 35, Last annotation update)
DE Galectin-3 (Galactose-specific lectin 3) (MAC-2 antigen) (IgE-binding protein) (35 kDa lectin) (Carbohydrate binding protein 35) (CBP 35)
DE (Laminin-binding protein) (Lectin L-29).
GN LGALS3.
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OC NCBI_TaxID=9986;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=New Zealand white; TISSUE=Aorta;
RX MEDLINE=96011642; PubMed=7590275;
RA Gaudin J.-C., Monsigny M., Legendre A.;
RT "Cloning of the cDNA encoding rabbit galectin-3."
RL Gene 163:249-252(1995).

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QY 108 PAGFLIVPYNLPGLPGVVVPMILITILGTVKPNARNRIALDPQRGNDAVAFHF-PRFNNRR 16
  I : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 8 PYNLAVPFTFTSIPNGLYSKSVISGVWLSADAKRFQINLRCGGDTAFHLNPRFDEN---64
  I : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 167 VIVCNTKLDNNNGREERQ--SVPFESGKPFKIOVLVDPHFVKVAVNDAHL-QYNHRVK 223
  : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 65 AVVANTQINNSWGHPKSLGSPFSGRQSFVWILCEGHCFKVAVDGQHICEYSHRLMN 124
  : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 224 LNEISKLGISGDIDL 239
  I : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 125 LPDINTLEVAGDIQLT 140
  I : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

RESULT 12
LEG6_MOUSE
ID LEG6_MOUSE STANDARD; PRT; 301 AA.
AC Q54891; O88352;
DT 15-DEC-1998 (Rel. 37, Created)
DT 13-DEC-1998 (Rel. 37, Last sequence update)
DT 13-JUN-2002 (Rel. 41, Last annotation update)
DE Galectin-6.
DE DE
GN LGALS6.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=129/SV;
RX MEDLINE=98112847; PubMed=9446608;
RA Gitt M.A., Colnot C., Polrier F., Nani K.J., Barondes S.H.,
RA Leffler H.;
RT "galectin-4 and galectin-6 are two closely related lectins expressed
RT in mouse gastrointestinal tract.";
RL J. Biol. Chem. 273:2954-2960(1998).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=129/SV;
RX MEDLINE=98112848; PubMed=9446609;
RA Gitt M.A., Xia Y.-R., Atchison R.E., Lusis A.J., Barondes S.H.,
RA Leffler H.;
RT "Sequence, structure, and chromosomal mapping of the mouse Lgals6
RT gene, encoding galectin-5.";
RL J. Biol. Chem. 273:2961-2970(1998).
CC -1- DOMAIN: CONTAINS TWO HOMOLOGOUS BUT DISTINCT CARBOHYDRATE-BINDING
CC -1- DOMAINS.
CC -1- SIMILARITY: BELONGS TO THE GALAPTIN (S-LECTIN) FAMILY.
CC
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CC modified and this statement is not removed. Usage by and for commen
CC entities requires a license agreement (See http://www.isb-sib.ch/anno
CC or send an email to license@isb-sib.ch).
CC
DR EMBL; AF026799; AAC04508.1;
DR EMBL; AF026796; AAC04508.1; JOINED.
DR EMBL; AF026797; AAC04508.1; JOINED.
DR EMBL; AF026798; AAC04508.1; JOINED.
DR EMBL; AF026794; AAC27244.1;
DR HSSP; P17931; 1A3K
DR MGD; MGI:107535; Lgals6.
DR InterPro; IPR001079; Galectin.
DR Pfam; PF00337; Gal-blind_lectin; 2.
DR SMART; SM00276; GLECT; 2.
DR PROSITE; PS00309; GALAPTIN; 2.
KW Galaptin; Lectin; Repeat.
FT DOMAIN 1 151 GALAPTIN 1.
FT DOMAIN 152 160 LINKER.
FT DOMAIN 160 301 GALAPTIN 2.
FT CONFLICT 154 154 A -> V (IN REF. 2; AAC27244).
SQ SEQUENCE 301 AA; 34112 MW; 9A4D009944EDFAB9 CRC64;

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Query Match	17.4%	Score 236.5	DB 1	Length 324
Best Local Similarity	35.2%	Pred. No. 3e-08		
Matches 68	Conservative 25	Mismatches 63	Indels 37	Gaps
71	GAPAGVYPPGPPGPGGAYPSSGQPSAPGAYATGPYGAP-----ACPLI----	VPYNL 118		
152	GOPAAQYVPGTMTIP-AYPSAG-----YNPQMNSLPVMAAGPPIENPPVYVG 198			
119	PLPGGVVPRMLIYILGTVPKPNANRIALDFQRN--DVAFHF-PRFENNRRIVCVTKLD 175			
199	TLOGGLFARTIIKIGVLPYPTAKNLIINKVGSTGDIAFHNNPRIGD-----CVRNSYMN 254			
176	NWGREERQSVF-PFESGPFKIQIOLVEDPHFKVAVNDAHL-QYNHRVKKLINEISKLGIS 233			
255	GSWSEERKTPYNPFGAGQFFDLSICGTDRFKVFGANGHLEDFSHRFQAFQVDMLEIK 314			
234	GDIDLTSASYTMI 246			
315	GDITL---SYVQI 324			
RESULT 14.				
LEG8_HUMAN STANDARD; PRT; 316 AA.				
ID	000214; Q15215; Q9UP34; Q9UEZ6; Q9UP33; Q9UP32; Q9H584; Q9H585;			
AC	Q96B92;			
DT	01-NOV-1997 (Rel. 35, Created)			
DDT	16-OCT-2001 (Rel. 40, Last sequence update)			
DDT	15-JUN-2002 (Rel. 41, Last annotation update)			
DE	Galectin-8 (Gal-8) (Prostate carcinoma tumor antigen 1) (PCTA-1)			
DE	(P066 carbohydrate-binding protein) (P066-CBP).			
GN	LGAL8.			
OS	Homo sapiens (Human).			
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.			
OX	NCBI_TaxID:9606;			
RP	[1]			
RP	SEQUENCE FROM N.A.			
RP	TISSUE=Prostate;			
RC	MEDLINE=96293510; PubMed=8692978;			
RA	Su Z.-Z., Lin J., Shen R., Fisher P.E., Goldstein N.I., Fisher P.B.;			
RT	"Surface-epitope masking and expression cloning identifies the human			
RT	prostate carcinoma tumor antigen gene PCTA-1 a member of the galectin			
RT	gene family.;"			
RL	Proc. Natl. Acad. Sci. U.S.A. 93:7252-7257(1996).			
RL	[2]			
RP	SEQUENCE FROM N.A.			
RP	TISSUE=Hippocampus;			
RC	Hadari Y.R., Eisenstein M., Zakut R., Zick Y.;			
RT	"Galectin-8: on the road from structure to function.;"			
RT	Trends Glycosci. Glycotechnol. 9:103-112(1997).			
RL	[3]			
RP	SEQUENCE FROM N.A., AND ALTERNATIVE SPLICING.			
RP	TISSUE=Lung carcinoma;			
RC	Brichory F., Biron N., Desrues B., Bourguet P., Le Pennec J.P.,			
RA	Dazord L.;			
RT	"Molecular cloning of a beta-galactoside-binding lectin related to			
RT	galectin-8 and identified in human lung carcinoma.;"			
RL	Submitted (JUN-1998) to the EMBL/GenBank/DBJ databases.			
RL	[4]			
RP	SEQUENCE FROM N.A.			
RP	Maier C., Haessler J., Roesch K., Moschagath E., Vogel W.;			
RA	"Genomic organization and expression of the human galectin-8 gene.;"			
RT	Submitted (OCT-1999) to the EMBL/GenBank/DBJ databases.			
RL	[5]			
RP	SEQUENCE FROM N.A.			
RP	MEDLINE=20438187; PubMed=10980616;			
RX	Gopalakrishnan R.V., Roberts T., Tuli S., Kang D., Christiansen K.A.,			
RA	Fisher P.B.;			
RT	"Molecular characterization of prostate carcinoma tumor antigen-1,			
RT	PCTA-1, a human galectin-8 related gene.;"			
RL	Oncogene 19:4405-4416(2000).			
RL	[6]			


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SQ SEQUENCE 316 AA; 35538 MW; 1724C36085A0510A CRC64;

Query Match          16.8%; Score 228.5; DB 1; Length 316;
Best Local Similarity 40.0%; Pred. No. 9e-08;
Matches 56; Conservative 22; Mismatches 51; Indels 11; Gaps 5;

QY 113 IVPYNLP L PGGVVRMLITLGTVKPNANRIALDFQRGN-----DVAFHF-PRENNR 165
      :||| :| | ||| :| | :| | :| | :| | :| | :| | ||||| |||
Db 15 VIPVGTPIDPOLDGTLVICGHVPSADRFQVDLQNGSSVPRADVFHFNPFKRAG- 73

QY 166 RVIVCNTKLDNNGREERQSVPFESCKPKFIQVLPEDFHKVAVNDAAH-LQYNHRVKKL 224
      :||||| :| | ||||| :| | :| | :| | :| | :| | :| | :| | :| |
Db 74 -CIVCTLINEKGREITYDTFPKREKSFEIWMUKDRFOVAVNGKHTLLYGHRIGP- 131

QY 225 NEISKLGISGDIDLTSASYT 244
      :| ||| | :||| :| | :| | :| | :| | :| | :| | :| | :| |
Db 132 EKIDTLGIYGVNIHSIGFS 151

RESULT 15
LEG8_RAT LEG8_RAT STANDARD; PRT; 316 AA.
AC O62665;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DE 15-JUL-1998 (Rel. 36, Last annotation update)
DE Galectin-8 (30 kDa S-type lectin) (RL-30).
GN LGALS8.
OS Rattus norvegicus (Rat.).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=101116;
RN [1]
SEQUENCE FROM N.A.
RP STRAIN-Sprague-Dawley; TISSUE=Liver;
RX MEDLINE=95155445; PubMed=7852431;
RA Hadari Y.R., Paz K., Dekel R., Mestrovic T., Accili D., Zick Y.;
RT "Galectin-8. A new rat lectin, related to galectin-4.";
RL J Biol. Chem. 270:3447-3453(1995)
CC CC -|- FUNCTION: POSSESSES SUGAR BINDING AND HEMAGGLUTINATION ACTIVITY.
CC CC -|- SUBCELLULAR LOCATION: Cytoplasmic.
CC CC -|- TISSUE SPECIFICITY: EXPRESSED IN LIVER, KIDNEY, CARDIAC MUSCLE,
CC CC LUNG, AND BRAIN.
CC CC -|- DEVELOPMENTAL STAGE: VERY LOW LEVELS IN WHOLE EMBRYOS, HIGH LEVELS
CC CC IN ADULT TISSUES.
CC CC -|- DOMAIN: CONTAINS TWO HOMOLOGOUS BUT DISTINCT CARBOHYDRATE-BINDING
CC CC DOMAINS.
CC CC -|- SIMILARITY: BELONGS TO THE GALAPTIN (S-LECTIN) FAMILY.
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-----
DB EMBL; U09824; AAA66359.1; --
DR HSP; P17931; IA3K.
DR InterPro; IPR001079; Galectin.
DR Pfam; PF00337; Gal_bind_lectin; 2.
DR SMART; SM00276; GLECT; 2.
DR PROSITE; PS00309; GALAPTIN; 1.
KW Galaptin; Lectin; Repeat.
FT DOMAIN 1 153 GALAPTIN 1.
FT DOMAIN 154 184 LINKER.
FT DOMAIN 185 316 GALAPTIN 2.
FT BINDING 248 254 BETA-GALACTOSIDE (BY SIMILARITY).
SQ SEQUENCE 316 AA; 35038 MW; C04B766CFE913D59 CRC64;

Query Match          16.1%; Score 218.5; DB 1; Length 316;
Best Local Similarity 39.9%; Pred. No. 3.7e-07;
Matches 55; Conservative 18; Mismatches 54; Indels 11; Gaps 5;

```

Search completed: May 20, 2003, 12:18:53
Job time : 12 secs

GenCore version 5.1.4_p5-4578
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OM protein - protein search, using sw model

Run on: May 20, 2003, 12:16:45 ; Search time 34 Seconds
(without alignments)
1490.811 Million cell updates/sec

Title: US-09-297-040-4
Perfect score: 1357
Sequence: 1 MADNFSLHDALSGGNPNPQ.....ISKLGISGIDILFSASYMTI 246

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 671580 seqs, 206047115 residues

Total number of hits satisfying chosen parameters: 671580

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

SPTREMBL_21:*

- 1: sp_archaea:*
- 2: sp_bacteria:*
- 3: sp_fungi:*
- 4: sp_human:*
- 5: sp_invertebrate:*
- 6: sp_mammal:*
- 7: sp_mhc:*
- 8: sp_organelle:*
- 9: sp_phage:*
- 10: sp_plant:*
- 11: sp_rodent:*
- 12: sp_virus:*
- 13: sp_vertebrate:*
- 14: sp_unclassified:*
- 15: sp_rvirus:*
- 16: sp_bacteriap:*
- 17: sp_archaeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	768	56.6	186	11 Q9CVE3	Q9cve3 mus musculus
2	695.5	51.3	262	13 Q90713	Q90713 gallus gall
3	663.5	48.9	332	13 Q8QGD9	Q8qgd9 gallus gall
4	444	32.7	139	11 Q61357	Q61357 mus musculus
5	314.5	23.2	341	13 Q9PRL1	Q9ptl1 oncorhynch
6	299	22.0	322	11 Q99183	Q99183 mus musculus
7	271	20.0	348	13 Q8QCB1	Q8qcb1 oncorhynch
8	264	19.5	311	4 Q8WY07	Q8wyq7 homo sapien
9	260	19.2	349	6 Q9XSM9	Q9xsm9 sus scrofa
10	258	19.0	343	13 Q8UW98	Q8uwm9 xenopus lae
11	257	18.9	317	6 Q9XSM8	Q9xsm8 sus scrofa
12	246.5	18.2	340	13 Q8UW99	Q8uwm9 xenopus lae
13	243.5	17.9	326	11 Q91X74	Q91x74 mus musculus
14	233.5	17.2	328	6 Q9TUB8	Q9tub8 oryctolagus
15	228.5	16.8	359	4 Q8TEV1	Q8tev1 homo sapien
16	223.5	16.5	359	4 Q8BXC8	Q8bxc8 homo sapien

17	216.5	16.0	300	11 Q88353	Q88353 mus musculus
18	213	15.7	332	13 Q8UW97	Q8uw97 xenopus lae
19	210.5	15.5	703	12 Q83467	Q83467 porcine ade
20	206.5	15.2	162	6 Q8WN59	Q8wn59 ovis aries
21	198	14.6	245	4 Q96BC5	Q96bc5 homo sapien
22	192.5	14.2	463	11 Q922A2	Q922a2 mus musculus
23	190.5	14.0	177	10 Q39115	Q39115 arabidopsis
24	189.5	14.0	329	5 Q44796	Q44796 caenorhabdi
25	188.5	13.9	285	5 Q45904	Q45904 caenorhabdi
26	187.5	13.8	277	5 Q9NJV1	Q9njv1 haemonchus
27	187.5	13.8	283	5 Q9NJV0	Q9njv0 haemonchus
28	187.5	13.8	313	5 Q20922	Q20922 caenorhabdi
29	187	13.8	300	4 Q96QS7	Q96qs7 homo sapien
30	186.5	13.7	179	10 Q9M0L8	Q9m0l8 arabidopsis
31	186.5	13.7	277	10 Q49678	Q49678 arabidopsis
32	185.5	13.7	463	11 Q8VIN2	Q8vin2 rattus norv
33	185	13.6	744	4 Q96D07	Q96d07 homo sapien
34	185	13.6	1070	2 Q9APM8	Q9apm8 myxococcus
35	184	13.6	299	5 Q18302	Q18302 caenorhabdi
36	183.5	13.5	744	11 Q9D2V4	Q9d2v4 mus musculus
37	183.5	13.5	744	11 Q921S8	Q921s8 mus musculus
38	183	13.5	299	5 Q27318	Q27318 caenorhabdi
39	183	13.5	1884	5 Q9NHW2	Q9nhw2 nephila mad
40	182.5	13.4	317	5 Q20091	Q20091 caenorhabdi
41	181.5	13.4	304	5 Q9XVG3	Q9xvg3 caenorhabdi
42	181.5	13.4	304	5 Q9U349	Q9u349 caenorhabdi
43	181.5	13.4	304	5 Q9U348	Q9u348 caenorhabdi
44	181.5	13.4	308	5 Q94620	Q94620 meloidogyne
45	181.5	13.4	462	5 Q9NHW3	Q9nhw3 nephila cla

ALIGNMENTS

RESULT 1

Q9CVE3 Q9CVE3 PRELIMINARY; PRT; 186 AA.
AC Q9CVE3;
DT 01-JUN-2001 (TREMBlrel. 17, Created)
DT 01-JUN-2001 (TREMBlrel. 17, Last sequence update)
DT 01-JUN-2002 (TREMBlrel. 21, Last annotation update)
DE Lectin, galactose binding, soluble 3 (Fragment).
GN LGALS3.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J; TISSUE=SMALL INTESTINE;
RX MEDLINE=21085660; PubMed=11217851;

RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamataka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baidarelli R., Barsh G.,
RA Blake J., Boirelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hcfmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Washima J., Mazzarelli J., Womberts P.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Suzuki H., Toyooka K., Wang K.H., Weitz C., Whitaker C., Wilming L.,
RA Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawai H., Kohtsuki S.,
RT Hayashizaki Y.
RL "Functional annotation of a full-length mouse cDNA collection."
RL Nature 409:685-690(2001).
DR EMBL; AK008593; BAB25766.1; -.
DR HSSP; P17931; IA3K.

QY 174 LDNNWREERQSV-FPFESGKPFKIQVLVDPDHFVKVANDAH-LOYNHRVKKLNEISKLG 231
DB 188 FQNNWKEERTAPRPPPGPGFVKLVCEGDHFKVAVNDHLLQFNREKRLNGITKLC 247
QY 232 ISGDDIDLTASYTMI 246
DB 248 IAGDITLTSLTSMI 262

RESULT 3
Q8QGD9 PRELIMINARY; PRT; 332 AA.
AC Q8QGD9;
DT 01-JUN-2002 (TREMblrel. 21, Created)
DT 01-JUN-2002 (TREMblrel. 21, Last sequence update)
DT 01-JUN-2002 (TREMblrel. 21, Last annotation update)
DE Galectin-3TMI isoform containing transmembrane spanning domain.
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE FROM N.A.
RA Gorski J.P., Liu F.-T., Artigues A., Castagna L.F., Osoby P.;
RT "New alternatively spliced form of galectin-3, a member of beta-
RT galactoside-binding animal lectin family, contains predicted
RT transmembrane spanning domain and leucine zipper motif."
RL Submitted (FEB-2002) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF479564; AAL91920.1;
KW Transmembrane.
SQ SEQUENCE 332 AA; 35484 MW; CF3203BC99418CB1 CRC64;

Query Match 48.9%; Score 663.5; DB 13; Length 332;
Best Local Similarity 46.5%; Pred. No. 5.4e-50;
Matches 151; Conservative 24; Mismatches 49; Indels 101; Gaps 15;

QY 7 LHDALSGS-----GNPNQGWPGWNGNPGAGGYPGASYPGQAP--PGAYPGQAP 58
DB 24 LHPQLSDALPAHNPAGPPQGW-----NRPPGGAFF--AYPGYGAAPGAGPYG--A 74
QY 59 PGAYHGAGYAGAPAGYVPPGPGGAYPSGGQPSAPGAY---ATGYPG-APAGPLI- 113
DB 75 PGPHHGPGGYPGPGP-PGYPGP--PGYP--GGP--PGYPGPGTAPYSEAPAPLV 127
QY 114 ----- 113
DB 128 ALSYFKGFCFSSSLCLAMGCTWGCYSLGCMSSHIAVMSTPCLTVRPVLLANVLFCL 187
QY 114 -----VPYNLPLPGVVPRLITILGTVPKNANRIALDFQGNVAFHF-PRENN 163
DB 188 TPNPCPLQKVPYDLPPLAGLMPRLITITVTNSNPNRSLDFKRGQDIAFHNPRKED 247
QY 164 NRRVIVCNTKLDNNWREERQSV-FPFESGKPFKIQVLVDPDHFVKVANDAH-LOYNHRV 221
DB 248 HKRVIVCNMSFQNNWKEERTAPRPPPGPGFVKLVCEGDHFKVAVNDHLLQFNRE 307

QY 222 KLINEISKLGIDLTASYTMI 246
DB 308 KKLNEITKLCIAGDITLTSLTSMI 332

RESULT 4
Q61357 PRELIMINARY; PRT; 139 AA.
AC Q61357;
DT 01-NOV-1996 (TREMblrel. 01, Created)
DT 01-NOV-1996 (TREMblrel. 01, Last sequence update)
DT 01-MAR-2002 (TREMblrel. 20, Last annotation update)
DE Beta-galactoside-binding lectin (L-34) (Fragment).
GN LGALS3.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

DR MGI:96778; Lgals3.
DR InterPro: IPR001079; Galectin.
DR Pfam: PF00337; Gal_bind_lectin; 1.
DR SMART: SM00276; GLECT; 1.
DR PROSITE: PS00309; GALAPTIN; 1.
FT NON_TER 1
SQ SEQUENCE 186 AA; 19938 MW; 0971F91053126996 CRC64;

Query Match 56.6%; Score 768; DB 11; Length 186;
Best Local Similarity 80.0%; Pred. No. 1.9e-59;
Matches 148; Conservative 11; Mismatches 18; Indels 8; Gaps 4;

QY 65 APGAYCAPAGYVPPGPGGAYPSGGQPSAPGAY-ATGYPGAPAGPLIVPNLPLPG 123
DB 7 AGGAYGPGTAPGAPGPGGAPGAY-----FSAPGGTAPAGYVPGAGPLTVFYDLP 61
QY 124 VVPRMLITILGTVPKNANRIALDFQGNVAFHF-PRENNRNRVIVCNTKLDNNWRE 182
DB 62 VMPRLITINGTVKPNANRIALDFQGNVAFHF-PRENNRNRVIVCNTKLDNNWKEE 121
QY 183 QSVFPFESGKPFKIQVLVDPDHFVKVANDAH-LOYNHRVKKLNEISKLGIDLTSA 241
DB 122 QSAFFPESGKPFKIQVLVDPDHFVKVANDAHLLQYNHRMKNLREISQLGISGIDLTSA 181
QY 242 SYTMI 246
DB 182 NHAMI 186

RESULT 2
Q90713 PRELIMINARY; PRT; 262 AA.
AC Q90713;
DT 01-NOV-1996 (TREMblrel. 01, Created)
DT 01-NOV-1996 (TREMblrel. 01, Last sequence update)
DT 01-MAR-2002 (TREMblrel. 20, Last annotation update)
DE Galectin-3.
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE FROM N.A.
RA Nurninskaya M.V., Linsenmayer T.F.;
RT TISSUE-CARTILAGE;
RT "Identification and characterization of up-regulated genes during
RT chondrocyte hypertrophy."
RL Dev. Dyn. 0:0-0(1996).
DR EMBL; U50339; AAB02856.1;
DR HSSP; P17931; 1A3K.
DR InterPro: IPR001079; Galectin.
DR Pfam: PF00337; Gal_bind_lectin; 1.
DR SMART; SM00276; GLECT; 1.
DR PROSITE; PS00309; GALAPTIN; UNKNOWN_1.
SQ SEQUENCE 262 AA; 28155 MW; 2D89581493BBCA30 CRC64;

Query Match 51.3%; Score 695.5; DB 13; Length 262;
Best Local Similarity 58.8%; Pred. No. 6.4e-53;
Matches 150; Conservative 23; Mismatches 51; Indels 31; Gaps 14;

QY 7 LHDALSGS-----GNPNQGWPGWNGNPGAGGYPGASYPGQAP--PGAYPGQAP 58
DB 24 LHPQLSDALPAHNPAGPPQGW-----NRPPGGAFF--AYPGYGAAPGAGPYG--A 74
QY 59 PGAYHGAGYAGAPAGYVPPGPGGAYPSGGQPSAPGAY---ATGYPG-APAGPLI 114
DB 75 PGPHHGPGGYPGPGP-PGYPGP--PGYP--GGP--PGYPGPGTAPYSEAPAPLV 127
QY 115 PYNLPLPGVVPRLITILGTVPKNANRIALDFQGNVAFHF-PRENNRNRVIVCNTK 173
DB 128 PYDLPALGMLPRLITITVTNSNPNRSLDFKRGQDIAFHNPRKEDHKRVIVCN 187

QY	113	IVPNLPLPGGVVPRMLTITILGTVKPNANRIALDFORGNDAVAFHF--PRFNENRRRVIVCN	171
		: : : : : : :	
Db	212	AVPYKNMINGGLYPGRITIOGVVNPENANRHNLLFNSGIALHFNPREDET---LVVFN	268
QY	172	TKLDNNGREROSVPPFFESCKPFKIQVLVDPDFKVAVNDAAHLQ-YNHRVKKLNEISKL	230
		: : : : : : : : :	
Db	269	SKLRDWMGKEERSGGMPFHGRQAFTLSITCDAOCYKIVVNGNOTSTYKURHTLLQQVNIL	328
QY	231	GISGDIDLTS 240	
		: :	
Db	329	EVDGDLSTLS 338	
		: :	
RESULT 6			
Q99L83			
ID	Q99L83	PRELIMINARY;	PRT; 322 AA.
AC	Q99L83;		
DT	01-JUN-2001 (TREMBLrel. 17, Created)		
DT	01-JUN-2001 (TREMBLrel. 17, Last sequence update)		
DT	01-MAR-2002 (TREMBLrel. 20, Last annotation update)		
DE	Lectin, galactose binding, soluble 9.		
GN	LGALS9.		
OS	Mus musculus (Mouse).		
OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;		
OC	Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.		
ON	NCBI_TaxID=10090;		
OX	[1]		
RP	SEQUENCE FROM N.A.		
RL	Strausberg R.;		
RL	Submitted (FEB-2001) to the EMBL/GenBank/DBJ databases.		
DR	EMBL; BC003754; AAH03754.1; -		
DR	HSSP; P17931; IA3K.		
DR	MGI; MGI:109496; Lqals9.		
DR	InterPro; IPR001079; Galectin.		
DR	Pfam; PF00337; Gal_bind_lectin; 2.		
DR	SMART; SM00276; GLECT; 2.		
DR	PROSITE; PS00309; GALAPTIN; 2.		
SEQ	SEQUENCE 322 AA; 36545 MW; 032D77400737562E CRC64;		
	Query Match 22.0%; Score 299; DB 11; Length 322;		
	Best Local Similarity 37.5%; Pred. No. 3.7e-18;		
	Matches 69; Conservative 28; Mismatches 47; Indels 40; Gaps		
QY	63	HGAPG---AYPGAPAGVTEGPPSGPGAYPSSGQSPAGAYATGPGAGAPGLIVPNLP	119
Db	168	HSTPGGMFSTPGIP-PVVIYTP-----AYT-----IPFYTP	197
QY	120	LPGGVVPRMLTILGTVKPNANRIALDFORGNDAVAFHF--PRFNENRRRVIVCNTKLDNMW	178
		: : : : : : : :	
Db	198	IPNGLYPSKSIMISGNVLPDTRFHNLRCGGDIAFHLNPRFEN---AVVRNTQINNSW	254
QY	179	GRERQSV--FPFESCKPFKIQVLVDPDFKVAVNDAAHLQ-OYHNRVKKLNEISKLGISC	235
		: : : : : : : : :	
Db	255	GQERSLGLRMPPSRGQSFVWICEGHCFKVAVNGOHMCEYHRLKLNLODINTLEVAGD	314
QY	236	IDLT 239	
Db	315	IQLT 318	
RESULT 7			
Q8OQB1			
ID	Q8OQB1	PRELIMINARY;	PRT; 348 AA.
AC	Q8OQB1;		
DT	01-JUN-2002 (TREMBLrel. 21, Created)		
DT	01-JUN-2002 (TREMBLrel. 21, Last sequence update)		
DT	01-JUN-2002 (TREMBLrel. 21, Last annotation update)		
DE	VHSV-induced protein-9.		
OS	Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).		
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		
OC	Actinopterygii; Neopterygii; Teleostei; Euteleostei;		
OC	Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.		
ON	NCBI_TaxID=8022;		

QY	239	T	239	
				I
DB	307	T	307	
RESULT 9				
ID	Q9XSM9	PRELIMINARY;	PRT;	349 AA.
DT	Q9XSM9;			
DT	01-NOV-1999 (TREMBLrel. 12, Created)			
DT	01-NOV-1999 (TREMBLrel. 12, Last sequence update)			
DT	01-MAR-2002 (TREMBLrel. 20, Last annotation update)			
DE	Urate transporter/channel protein, isoform (UATP.i).			
GN	UATP.i.			
OS	Sus scrofa (Pig).			
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.			
OX	NCBI_TaxID=9823;			
RN	[1]			
RP	SEQUENCE FROM N.A.			
RC	TSISUE-KIDNEY;			
RA	Spitzenberger F., Graessler J., Schroeder H.E.;			
RT	"Molecular characterization and functional expression of a renal urate			
RT	transporter/channel from cultured LLC-PK1 epithelial cells.";			
RL	Submitted (DEC-1998) to the EMBL/GenBank/DBJ databases.			
DR	EMBL; AJ131827; CAB44279.1;			
DR	HSSP; P17931; 1A3K.			
DR	InterPro: IPR001079; Galectin.			
DR	Pfam: PF00337; Gal-bind.Lectin; 2.			
DR	SMART; SM00276; GLECT; 2.			
DR	PROSITE; PS00309; GALAPTIN; 1.			
SQ	SEQUENCE 349 AA; 3899 MW; BF83D3E213E7B64C CRC64;			
Query Match 19.2%; Score 260; DB 6; Length 349;				
Best Local Similarity 31.7%; Pred. No. 1e-14;				
Matches 66; Conservative 32; Mismatches 42; Gaps				
QY	37	PGASYPGYGG--APPGAYPGQAPP-----GAYHGAGGAYGAPAGPYGPGSPGPGAY 88		
DB	167	PACFPFPHKGRKPKPGRGWANSAPITQTVIHTVQSTPGQ-----MFPNPMPPWAY 218		
QY	89	PSSGOPSAPGAYATGPGAGAPGLIYPNILPLGGVYVPRMLITILGTVKPNANRIALDFQ 148		
DB	219	PN-----PVEP--IPFFASIPGLYPSKSMVSGTILPSAQSFVINLR 259		
QY	149	RGNDVAFHF--PRFNENRRVIVCTKLDNNWGREER--QSVFPFESGKPKIQLVLEPDH 205		
DB	260	SGSDIAFHLPFRKEN---AVVRTQIGSSWGPEERGLPRKMPFSGQSLFWILCESHC 316		
QY	206	FKVAVND AHL-QYNHRVKKLNEISKGI 232		
DB	317	FKVAVDGHQLFEYTHRLKPLTINSLEY 344		
RESULT 10				
ID	Q8UW98	PRELIMINARY;	PRT;	343 AA.
AC	Q8UW98;			
DT	01-MAR-2002 (TREMBLrel. 20, Created)			
DT	01-MAR-2002 (TREMBLrel. 20, Last sequence update)			
DT	01-JUN-2002 (TREMBLrel. 21, Last annotation update)			
DE	Galectin family xgalectin-IIIa.			
GN	XGALECTIN-IIIa.			
OS	Xenopus laevis (African clawed frog).			
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
OC	Amphibia; Batrachia; Anura; Mesobatrachia; Pipidae; Pipidae;			
OC	Xenopodinae; Xenopus.			
OX	NCBI_TaxID=8355;			
RN	[1]			
RP	SEQUENCE FROM N.A.			
RC	TSISUE-LIVER;			
RA	Shoji H., Nishi N., Hirashima M., Nakamura T.;			

DB 242 EN--AVVRNTQIGSSWGPPEERGLPRKMPFSGQSLVWILCESHCFAVNDQHLFEY 298

RN [1] on November 1999;

RP SEQUENCE FROM N.A.
 RC TISSUE-COLON;
 RA Strausberg R.;
 RL Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-COLON;
 RA Strausberg R.;
 RL Submitted (JAN-2002) to the EMBL/GenBank/DBJ databases.
 DR EMBL; BC011236; AAH11236.1; -
 DR EMBL; BC021632; AAH21632.1; -
 DR MGD; MGI:107536; Igals4.
 DR InterPro; IPR001079; Galectin.
 DR Pfam; PF00337; Gal-bind_lectin; 2.
 DR PROSITE; PS00309; GALAPTIN; UNKNOWN_2.
 KW Hypothetical protein.
 SQ SEQUENCE 326 AA; 36372 MW; 7F3DD89862A853B5 CRC64;

Query Match 17.9%; Score 243.5; DB 11; Length 326;
 Best Local Similarity 35.8%; Pred. No. 2.6e-13;
 Matches 54; Conservative 31; Mismatches 57; Indels 9; Gaps 5;
 QY 99 AYATGPGYAGAPGLIVPNLPLPGVVPRLITILGTVPKNANRIALDF---QRGNDVA 154
 DB 2 AIVPAGYQPTYNLTLPKPIPGGLGVSGMSVYIQGMKMRFRHVFVAVGQDDGADVA 61
 QY 155 FHF-PREFNENRRVIVCNTKLDNNMGRERQSVFPESGPKFIQVLVEPDHFKVAVN-D 212
 DB 62 FHFNPREDGMDK--VVFNTQSGQGWGKEKKSMFPQKGFELVFVMPMEHYKVVVNGN 119
 QY 213 AHLQYNIHRVKLNLEISKLGSGDDILTSASY 243
 DB 120 SFYEYGHRL-PVQMVTHLQVDGDLQSLINF 149

RESULT 14
 Q9TUB8 PRELIMINARY; PRT; 328 AA.
 AC Q9TUB8;
 DT 01-MAY-2000 (Tremblrel. 13, Created)
 DT 01-MAY-2000 (Tremblrel. 13, Last sequence update)
 DT 01-MAR-2002 (Tremblrel. 20, Last annotation update)
 DE Galectin-4.
 GN LGALS4.
 OS Oryctolagus cuniculus (Rabbit).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
 OC NCBI_TaxID=9986;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-NEW ENGLAND WHITE;
 RX MEDLINE=20147388; PubMed=10683764;
 RA Jiang W., Puch S., Guo X., Bhavanandan V.P.;
 RT "Signature sequences for the galectin-4 subfamily."
 RL IUBMB Life 48:601-605(1999).
 DR EMBL; AF091738; AAD55242.1; -
 DR HSP; P47929; LBKZ.
 DR InterPro; IPR001079; Galectin.
 DR Pfam; PF00337; Gal-bind_lectin; 2.
 DR SMART; SM00276; GLECT. 2
 DR PROSITE; PS00309; GALAPTIN; UNKNOWN_2.
 SQ SEQUENCE 328 AA; 36462 MW; 030BFF1B723D2ACF CRC64;

Query Match 17.2%; Score 233.5; DB 6; Length 328;
 Best Local Similarity 34.5%; Pred. No. 2e-12;
 Matches 68; Conservative 23; Mismatches 81; Indels 25; Gaps 10;

QY 55 GQAPPGAYHGAAPGAPGAPGVTPGPGVPSGQSPAGAYATGYPGAPAGPLIV 114
 DB 152 GQPTP---HQRPWTPTGYPSPGY--GHP-GYGAQPLHSLPSMEGPTFNP-----PV 197
 QY 115 PYNLPLPGVVPRLITILGTVPKNANRIALDFQGN--DVAFHF-PREFNENRRVIVCN 171

DB 198 PFTGRLOGLTARTTIIVKGYVPPTGKSFINKFVSSGDLALHINPRMTEG---VVVRN 254
 QY 172 TKLDNNMGRERQSVF-PFESGPKFIQVLVEPDHFKVAVNDAH-LQYNIHRVKLNLEISK 229
 DB 255 SRLNGSWGAERKWAYNPFPGQYFDLSIRCGMDRFKVKYANGQHLFDYAHREFPAFKVDV 314
 QY 230 LGISGDIDLTSASYTMI 246
 DB 315 IEIQGDVAL---SYVQI 328
 RESULT 15
 Q8TEV1 PRELIMINARY; PRT; 359 AA.
 AC Q8TEV1;
 DT 01-JUN-2002 (Tremblrel. 21, Created)
 DT 01-JUN-2002 (Tremblrel. 21, Last sequence update)
 DT 01-JUN-2002 (Tremblrel. 21, Last annotation update)
 DE Lymphocyte/NHL galectin-8 long isoform.
 GN LGALS8.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 OC NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Moisan S., Mercier J., Demers M., Belanger S.D., Alain T.,
 RA Kossakowska A.E., Potworowski E.F., St-Pierre Y.;
 RT "Galectins in murine and human non-Hodgkin's lymphomas";
 RL Submitted (JAN-2002) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AF468213; AAL77076.1; -
 SQ SEQUENCE 359 AA; 40151 MW; F87BFE92E46F571 CRC64;
 Query Match 16.8%; Score 228.5; DB 4; Length 359;
 Best Local Similarity 40.0%; Pred. No. 6.1e-12;
 Matches 56; Conservative 22; Mismatches 51; Indels 11; Gaps 5;
 QY 113 IVPNLPLPGVVPRLITILGTVPKNANRIALDFQGN-----DVAFHF-PREFNENNR 165
 DB 16 VIPVGTIPQLDPGTLIVICGHVPSDADRFDQVLDQNGSSVKPRADYAFHFNPRFKRAG- 74
 QY 166 RVIVCNTKLDNNMGRERQSVFPESGPKFIQVLVEPDHFKVAVNDAH-LQYNIHRVKKL 224
 DB 75 -CIVCNTLINEKMGREITTYDTPFKREKSEFIVIMVLKDFQVAVNGKHTLLYGHRIGP- 132
 QY 225 NEISKLGISGDDILTSASYT 244
 DB 133 EKIDTLGIYGVNIHSIGFS 152

Search completed: May 20, 2003, 12:19:34
 Job time : 36 secs

GenCore version 5.1.4.p5_4578
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OM protein - protein search, using sw model

Run on: May 20, 2003, 12:18:00 ; Search time 30 Seconds
(without alignments)
241.268 Million cell updates/sec

Title: US-09-297-040-4
Perfect score: 1357
Sequence: 1 MADNFSLHDALSGGNPNQ.....ISKLIGISGIDILTSASYTMI 246

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 262574 seqs, 29422922 residues

Total number of hits satisfying chosen parameters: 262574

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents AA.*
1: /cgn2_6/ptodata/1/1aa/5A_COMB.pep.*
2: /cgn2_6/ptodata/1/1aa/5B_COMB.pep.*
3: /cgn2_6/ptodata/1/1aa/6A_COMB.pep.*
4: /cgn2_6/ptodata/1/1aa/6B_COMB.pep.*
5: /cgn2_6/ptodata/1/1aa/PCTUS_COMB.pep.*
6: /cgn2_6/ptodata/1/1aa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1315	96.9	250	3	US-08-946-914-10
2	1315	96.9	250	4	US-09-656-450-10
3	1305	96.2	250	1	US-08-562-311-2
4	1079	79.5	262	3	US-08-946-914-14
5	1079	79.5	262	4	US-09-656-450-14
6	1078	79.4	264	1	US-08-562-311-4
7	513	37.8	135	2	US-08-647-960-5
8	264	19.5	311	3	US-08-946-914-4
9	264	19.5	311	4	US-09-656-450-4
10	250.5	18.5	145	2	US-08-788-584-5
11	250.5	18.5	145	3	US-08-946-914-12
12	250.5	18.5	145	4	US-09-656-450-12
13	249	18.3	149	2	US-08-788-584-3
14	243.5	17.9	145	2	US-08-788-584-1
15	236.5	17.4	324	3	US-08-946-914-11
16	236.5	17.4	324	4	US-09-656-450-11
17	223.5	16.5	200	3	US-08-946-914-8
18	223.5	16.5	200	4	US-09-656-450-8
19	223.5	16.5	316	4	US-09-131-648-5
20	223.5	16.5	317	3	US-08-946-914-6
21	223.5	16.5	317	4	US-09-656-450-6
22	218.5	16.1	316	2	US-08-728-521-3
23	218.5	16.1	316	3	US-08-647-960-2
24	218.5	16.1	316	3	US-08-946-914-15
25	218.5	16.1	316	3	US-08-946-914-17
26	218.5	16.1	316	4	US-09-212-146-3
27	218.5	16.1	316	4	US-09-656-450-15

28	218.5	16.1	316	4	US-09-656-450-17	Sequence 17, Appl
29	215.5	15.9	323	1	US-08-469-667-16	Sequence 16, Appl
30	215.5	15.9	323	3	US-08-946-914-2	Sequence 2, Appl
31	215.5	15.9	323	4	US-09-224-110-16	Sequence 2, Appl
32	215.5	15.9	323	4	US-09-656-450-2	Sequence 2, Appl
33	215.5	15.9	323	5	PCT-US95-07289-16	Sequence 16, Appl
34	211	15.5	136	3	US-08-946-914-13	Sequence 13, Appl
35	211	15.5	136	4	US-09-154-750A-79	Sequence 79, Appl
36	211	15.5	136	4	US-09-656-450-13	Sequence 13, Appl
37	200.5	14.8	504	4	US-09-219-849-3	Sequence 3, Appl
38	200.5	14.8	561	1	US-08-642-255-52	Sequence 52, Appl
39	199.5	14.7	144	1	US-08-642-255-49	Sequence 49, Appl
40	199.5	14.7	720	4	US-09-219-849-4	Sequence 4, Appl
41	199.5	14.7	777	1	US-08-642-255-53	Sequence 53, Appl
42	197.5	14.6	234	1	US-08-642-255-51	Sequence 51, Appl
43	196.5	14.5	466	3	US-08-526-136-13	Sequence 13, Appl
44	195.5	14.4	417	1	US-08-175-155-69	Sequence 69, Appl
45	195.5	14.4	417	1	US-08-477-509B-104	Sequence 104, App

ALIGNMENTS

RESULT 1
US-08-946-914-10
; Sequence 10, Application US/08946914
; Patent No. 6027916
; GENERAL INFORMATION:
; APPLICANT: NI, Jian
; APPLICANT: Gentz, Reiner L.
; APPLICANT: Ruben, Steven M.
; TITLE OF INVENTION: Galectin 8, 9, 10 and 10SV
; NUMBER OF SEQUENCES: 60
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein, & Fox P.L.L.C.
; STREET: 1100 New York Ave., Suite 600
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20005-3934
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/946,914
; FILING DATE: Herewith
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/028,093
; FILING DATE: 09-OCT-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Steffe, Eric K.
; REGISTRATION NUMBER: 36,688
; REFERENCE/DOCKET NUMBER: 1488.0560001/EKS/SGW
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-2600
; TELEFAX: 202-371-2540
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 250 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-946-914-10

Query Match 96.9%; Score 1315; DB 3; Length 250;
Best Local Similarity 98.4%; Pred. No. 1.8e-114;
Matches 246; Conservative 0; Mismatches 0; Indels 4; Gaps 4;
QY 1 MADNFSLHDALSGGNPNQGWPGAWGNQAGAGGYGASYPG-YPGQAPPAYPGQAPP 59

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Db 1 MADNFSLHDALSGGNPNQGWPGANGNPAGAGGYPGASYPGAYPGQAPPYPCQAPP 60
QY 60 GAYHAGPAGPAGAPGVYPCPPSGGAYPSSGQPSAPGAY-ATGPGAPAGPLIYPYNL 118
Db 61 GAYHAGPAGPAGAPGVYPCPPSGGAYPSSGQPSAPGAYPATGPGAPAGPLIYPYNL 120
QY 119 PLPGGVVPRMLITILGTGVPKPNANRIALDFQGNDAFHF-PRFNNRRVIVCNTKLDNN 177
Db 121 PLPGGVVPRMLITILGTGVPKPNANRIALDFQGNDAFHFPRFNNRRVIVCNTKLDNN 180
QY 178 WGREERQSVFPFESGKPKIQLVPEPDHFKVAVNDAH-LOYNHRVKKLNKLSKLGISGDI 236
Db 181 WGREERQSVFPFESGKPKIQLVPEPDHFKVAVNDAHLLQYNHRVKKLNKLSKLGISGDI 240
QY 237 DLTSASYTMI 246
Db 241 DLTSASYTMI 250

RESULT 2
US-09-656-450-10
; Sequence 10, Application US/09656450
; Patent No. 6468768
; GENERAL INFORMATION:
; APPLICANT: Ni, Jian
; APPLICANT: Gentz, Reiner L.
; APPLICANT: Ruben, Steven M.
; TITLE OF INVENTION: Galectin 9 and 10SV Polynucleotides
; FILE REFERENCE: 1488.0560003
; CURRENT APPLICATION NUMBER: US/09/656,450
; CURRENT FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: US 09/263,689
; PRIOR FILING DATE: 1999-03-05
; PRIOR APPLICATION NUMBER: US 08/946,914
; PRIOR FILING DATE: 1997-10-09
; PRIOR APPLICATION NUMBER: US 60/028,093
; PRIOR FILING DATE: 1996-10-09
; NUMBER OF SEQ ID NOS: 60
; SOFTWARE: Patent in version 3.0
; SEQ ID NO 10
; LENGTH: 250
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-656-450-10

Query Match 96.98; Score 1315; DB 4; Length 250;
Best Local Similarity 98.48; Pred. No. 1.8e-114;
Matches 246; Conservative 0; Mismatches 0; Indels 4; Gaps 4;
QY 1 MADNFSLHDALSGGNPNQGWPGANGNPAGAGGYPGASYPG-YPGQAPPYPCQAPP 59
Db 1 MADNFSLHDALSGGNPNQGWPGANGNPAGAGGYPGASYPGAYPGQAPPYPCQAPP 60
QY 60 GAYHAGPAGPAGAPGVYPCPPSGGAYPSSGQPSAPGAY-ATGPGAPAGPLIYPYNL 118
Db 61 GAYHAGPAGPAGAPGVYPCPPSGGAYPSSGQPSAPGAYPATGPGAPAGPLIYPYNL 120
QY 119 PLPGGVVPRMLITILGTGVPKPNANRIALDFQGNDAFHF-PRFNNRRVIVCNTKLDNN 177
Db 121 PLPGGVVPRMLITILGTGVPKPNANRIALDFQGNDAFHFPRFNNRRVIVCNTKLDNN 180
QY 178 WGREERQSVFPFESGKPKIQLVPEPDHFKVAVNDAH-LOYNHRVKKLNKLSKLGISGDI 236
Db 181 WGREERQSVFPFESGKPKIQLVPEPDHFKVAVNDAHLLQYNHRVKKLNKLSKLGISGDI 240
QY 237 DLTSASYTMI 246
Db 241 DLTSASYTMI 250
RESULT 3
US-08-946-914-12

; Sequence 2, Application US/08562311
; Patent No. 5801002
; GENERAL INFORMATION:
; APPLICANT: RAZ, AVRAHAM
; TITLE OF INVENTION: A METHOD OF DETERMINING THE PROBABILITY
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Dykema Gossett
; STREET: STE 505 N. Woodward
; CITY: Bloomfield Hills
; STATE: MI
; COUNTRY: U.S.
; ZIP: 48304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/562,311
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/188,225
; FILING DATE:
; APPLICATION NUMBER: US 07/681,242
; FILING DATE: 04-APR-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/294,249
; FILING DATE: 01-JUN-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: KELLY, ROBERT L.
; REGISTRATION NUMBER: 31,843
; REFERENCE/DOCKET NUMBER: 61,686-
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 810-540-0849
; TELEFAX: 810-540-0763
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 250 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-562-311-2

Query Match 96.2%; Score 1305; DB 1; Length 250;
Best Local Similarity 97.6%; Pred. No. 1.5e-113;
Matches 244; Conservative 0; Mismatches 2; Indels 4; Gaps 4;
QY 1 MADNFSLHDALSGGNPNQGWPGANGNPAGAGGYPGASYPG-YPGQAPPYPCQAPP 59
Db 1 MADNFSLHDALSGGNPNQGWPGANGNPAGAGGYPGASYPGAYPGQAPPYPCQAPP 60
QY 60 GAYHAGPAGPAGAPGVYPCPPSGGAYPSSGQPSAPGAY-ATGPGAPAGPLIYPYNL 118
Db 61 GAYHAGPAGPAGAPGVYPCPPSGGAYPSSGQPSAPGAYPATGPGAPAGPLIYPYNL 120
QY 119 PLPGGVVPRMLITILGTGVPKPNANRIALDFQGNDAFHF-PRFNNRRVIVCNTKLDNN 177
Db 121 PLPGGVVPRMLITILGTGVPKPNANRIALDFQGNDAFHFPRFNNRRVIVCNTKLDNN 180
QY 178 WGREERQSVFPFESGKPKIQLVPEPDHFKVAVNDAH-LOYNHRVKKLNKLSKLGISGDI 236
Db 181 WGREERQSVFPFESGKPKIQLVPEPDHFKVAVNDAHLLQYNHRVKKLNKLSKLGISGDI 240
QY 237 DLTSASYTMI 246
Db 241 DLTSASYTMI 250
RESULT 4
US-08-946-914-14

Tue May 20 14:40:25 2003

FILING DATE: US 07/681,242
 FILING DATE: 04-APR-1991
 PRIOR APPLICATION DATA: US 07/294,249
 FILING DATE: 01-JUN-1989
 ATTORNEY/AGENT INFORMATION:
 NAME: KELLY, ROBERT L.
 REGISTRATION NUMBER: 31,843
 REFERENCE/DOCKET NUMBER: 61,686-
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 810-540-0849
 TELEFAX: 810-540-0763
 INFORMATION FOR SEQ ID NO: 4:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 264 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-562-311-4

Query Match 79.4%; Score 1078; DB 1; Length 264;
 Best Local Similarity 78.2%; Pred. No. 1.8e-92;
 Matches 208; Conservative 15; Mismatches 21; Indels 22; Gaps 8;

QY 1 MADNLSHDLGSGNPNQCHGAWGNQAGAGGYPG-YPGQAPPYAGYPPGQAPP 59
 DB 1 MADTSLDALAGSGNPNQCHGAWGNQAGAGGYPG-YPGQAPPYAGYPPGQAPP 59
 QY 60 GAYHG-APGAYGAPAGVPGPGGAYPSS-----GQPSAPGAY-----AT 102
 DB 60 GAYGQAPPSAYPGTAPGAYG-PTAGAYPGSTAPGAYGQPGAGYPSAPGYPAA 118
 QY 103 GPYAGAPGLIYVPLPGGVVPRMLITILGTVPKNANRIALDFQGNDAVAFH-PREN 161
 DB 119 GPYGVAGPLTVPYDPLPGGLPRMLITIMGTVPKNANRIALDFQGNDAVAFH-PREN 178
 QY 162 ENNRVIVCNTKLDNNWREERQSPFESGPKFIQVLVEPDHFKVAVNDAH-LOYNHR 220
 DB 179 ENNRVIVCNTKLDNNWREERQSPFESGPKFIQVLVEPDHFKVAVNDAH-LOYNHR 238
 QY 221 VKLNEISKLGISGDIITLSASYTMI 246
 DB 239 MKNLREISQIGSGDITLTSANHAM 264

RESULT 7
 US-08-647-960-5
 Sequence 5, Application US/08647960
 Patent No. 5908761
 GENERAL INFORMATION:
 APPLICANT: ZICK, Yehiel
 TITLE OF INVENTION: GALECTIN-8 AND GALECTIN-8-LIKE PROTEINS
 NUMBER OF SEQUENCES: 19
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: BROWDY AND NEIMARK
 STREET: 419 Seventh Street, N.W., Suite 300
 CITY: Washington
 STATE: D.C.
 COUNTRY: USA
 ZIP: 20004
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent In Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/647,960
 FILING DATE: 30-MAY-1996
 CLASSIFICATION: 536
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: IL 107880
 FILING DATE: 05-DEC-1993

ATTORNEY/AGENT INFORMATION:
 NAME: BROWDY, Roger L.
 REGISTRATION NUMBER: 25,618
 REFERENCE/DOCKET NUMBER: ZICK-1
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 202-628-5197
 TELEFAX: 202-737-3527
 INFORMATION FOR SEQ ID NO: 5:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 135 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: peptide
 US-08-647-960-5

Query Match 37.8%; Score 513; DB 2; Length 135;
 Best Local Similarity 76.3%; Pred. No. 2e-40;
 Matches 103; Conservative 11; Mismatches 19; Indels 2; Gaps 2;

QY 114 VYVNLPLPGGVVPRMLITILGTVPKNANRIALDFQGNDAVAFH-FPRNENNRVIVCNT 172
 DB 1 VYDMLPGGVVPRMLITILGTVPKNANSETLNEKKGNDAIEHENPRENENNRVIVCNT 60
 QY 173 KLDNNWREERQSPFESGPKFIQVLVEPDHFKVAVNDAH-LOYNHRVKKLNEISKLG 231
 DB 61 KODNNWREERQSAFPEESGPKFIQVLVEADHFKVAVNDVHLLQYNHRMKNLREISQLG 120
 QY 232 ISGDIITLSASYTMI 246
 DB 121 IIGDITLTSASHAMI 135

RESULT 8
 US-08-946-914-4
 Sequence 4, Application US/08946914
 Patent No. 6027916
 GENERAL INFORMATION:
 APPLICANT: Ni, Jian
 APPLICANT: Gentz, Reiner L.
 APPLICANT: Ruben, Steven M.
 TITLE OF INVENTION: Galectin 8, 9, 10 and 10SV
 NUMBER OF SEQUENCES: 60
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Sterne, Kessler, Goldstein, & Fox P.L.L.C.
 STREET: 1100 New York Ave., Suite 600
 CITY: Washington
 STATE: D.C.
 COUNTRY: USA
 ZIP: 20005-3934
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent In Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/946,914
 FILING DATE: Herewith
 CLASSIFICATION: 530
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 60/028,093
 FILING DATE: 09-OCT-1996
 ATTORNEY/AGENT INFORMATION:
 NAME: Steffe, Eric K.
 REGISTRATION NUMBER: 36,688
 REFERENCE/DOCKET NUMBER: 1488.0560001/EKS/SGW
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 202-371-2600
 TELEFAX: 202-371-2540
 INFORMATION FOR SEQ ID NO: 4:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 311 amino acids
 TYPE: amino acid

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US-08-788-584-5
; Sequence 5, Application US/08788584
; Patent No. 5837493
; GENERAL INFORMATION:
; APPLICANT: Hillman, Jennifer L.
; APPLICANT: Goli, Surya K.
; APPLICANT: Bandman, Olga
; APPLICANT: Hawkins, Phillip R.
; APPLICANT: Petithory, Joanne R.
; TITLE OF INVENTION: NOVEL HUMAN GALECTINS
; NUMBER OF SEQUENCES: 5
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Incyte Pharmaceuticals, Inc.
; STREET: 3174 Porter Drive
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/788,584
; FILING DATE: Filed Herewith
; CLASSIFICATION: 436
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Billings, Lucy J.
; REGISTRATION NUMBER: 36,749
; REFERENCE/DOCKET NUMBER: PF-0192 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-0555
; TELEFAX: 415-845-4166
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 145 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: GenBank
; CLONE: 727176
; US-08-788-584-5

Query Match 18.5%; Score 250.5; DB 2; Length 145;
Best Local Similarity 40.4%; Pred. No. 4.8e-16;
Matches 55; Conservative 26; Mismatches 48; Indels 7; Gaps

QY 108 PAGPLIVPNLPLGGVVPMLTILGTVPKPNANRIALDPQRGNDAFHF-PRENENNRR 166
| | | | | : | | | | | : | | | | | : | | | | |
Db 9 PYPNLAVPFFTSIPNGLYPSKSIVSGVLSDAKRFQINLRCGGDIAFHLNPRFDEN--- 65
QY 167 VIVCNTKLDNNNGREERQ--SVPFESGKPKFQLVLPDHFVKVANDAHL-QYNHRVKK 223
| | | | | : | | | | | : | | | | | : | | | | |
Db 66 AVVANTQINNNGPEERSLPGSPFSGRQFSWILCEGHCFFKVAVDGQHICEYSHRLMN 125
QY 224 LNEISKLGISGDIDL 239
| | | | | : | | | | |
Db 126 LPDINTLEVAGDTQLT 141

RESULT 11
US-08-946-914-12
; Sequence 12, Application US/08946914
; Patent No. 6027916
; GENERAL INFORMATION:
; APPLICANT: Ni, Jian
; APPLICANT: Gentz, Reiner L.
; APPLICANT: Ruben, Steven M.

```

; TITLE OF INVENTION: Galactin 8, 9, 10 and 10SV
 ; NUMBER OF SEQUENCES: 60
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Sterne, Kessler, Goldstein, & Fox P.L.L.C.
 ; STREET: 1100 New York Ave., Suite 600
 ; CITY: Washington
 ; STATE: D.C.
 ; COUNTRY: USA
 ; ZIP: 20005-3934
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: PatentIn Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/946,914
 ; FILING DATE: Herewith
 ; CLASSIFICATION: 530
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 60/028,093
 ; FILING DATE: 09-OCT-1996
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Steffe, Eric K.
 ; REGISTRATION NUMBER: 36,688
 ; REFERENCE/DOCKET NUMBER: 1488.0560001/EKS/SGW
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 202-371-2600
 ; TELEFAX: 202-371-2540
 ; INFORMATION FOR SEQ ID NO: 12:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 145 amino acids
 ; TYPE: amino acid
 ; STRANDEDNESS: not relevant
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: CDNA
 ; US-08-946-914-12

[illegible]

```

RESULT 12
US-09-656-450-12
; Sequence 12, Application US/09656450
; Patent No. 6468768
; GENERAL INFORMATION:
; APPLICANT: Ni, Jian
; APPLICANT: Gentz, Reiner L.
; APPLICANT: Ruben, Steven M.
; TITLE OF INVENTION: Galectin 9 and 10SV Polynucleotides
; FILE REFERENCE: 1488.0560003
; CURRENT APPLICATION NUMBER: US/09/656,450
; CURRENT FILING DATE: 2000-09-06
; PRIOR APPLICATION NUMBER: US 09/263,689
; PRIOR FILING DATE: 1999-03-05
; PRIOR APPLICATION NUMBER: US 08/946,914
; PRIOR FILING DATE: 1997-10-09
; PRIOR APPLICATION NUMBER: US 60/028,093
; PRIOR FILING DATE: 1996-10-09
; NUMBER OF SEQ ID NOS: 60

```

11

```

; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 12
; LENGTH: 145
; TYPE: PRT
; ORGANISM: Rat
US-09-656-450-12

Query Match      18.5%; Score 250.5; DB 4; Length 145;
Best Local Similarity 40.4%; Pred. NO. 4.8e-16;
Matches 55; Conservative 26; Mismatches 48; Indels 7; Gaps

QY 108 PAGFLIIPYNLP.LPGGVVPRMLITILGTVPKPNANRRALTDFQRCNDVAFHF-PRFNNENNR 166
      | | | | | : | | | | | : | | | | | : | | | | | : | | | | |
Db 9 PYPNLAVPFTTSPNGLYPKSIVISGVLSDAKRFQINLRCCGDIATFHLNPRFDE--- 65

QY 167 VIVCNTLDNNWGREERQ--SVPEFSGKGFKIQVLVEPDHFHKVAVNDAHL-QYNNHRVKK 123
      : | | | | | : | | | | | : | | | | | : | | | | | : | | | | |
Db 66 AVVENTOINNSWGPERSLRSGSPFSGRFSVWLLCEGHCFKVAVDGQHICETSHRLMN 125

QY 224 LNEISKLGISGDIDL 239
      | : | : | | | |
Db 126 LPDINTLEVAGDIQLT 141

RESULT 13
US-08-788-584-3
; Sequence 3, Application US/08788584
; Patent No. 5837493
; GENERAL INFORMATION:
; APPLICANT: Hillman, Jennifer L.
; APPLICANT: Goli, Surya K.
; APPLICANT: Bandman, Olga
; APPLICANT: Hawkins, Phillip R.
; APPLICANT: Pettithory, Joanne R.
; TITLE OF INVENTION: NOVEL HUMAN GALECTINS
; NUMBER OF SEQUENCES: 5

```

```

CORRESPONDENCE ADDRESS:
ADDRESS: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
CITY: Palo Alto
STATE: CA
COUNTRY: USA
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/788,584
FILING DATE: Filed Herewith
CLASSIFICATION: 436
PRIOR APPLICATION DATA:
APPLICATION NUMBER:

```

FILING DATE:
 ATTORNEY/AGENT INFORMATION:
 NAME: Billings, Lucy J.
 REGISTRATION NUMBER: 36,749
 REFERENCE/DOCKET NUMBER: PF-0192 US
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 415-855-0555
 TELEFAX: 415-845-4166
 INFORMATION FOR SEQ ID NO: 3:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 149 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 US-08-788-584-3

Query Match 18.3%; Score 249; DB 2; Length 149;
Best Local Similarity 37.1%; Pred. No. 6.8e-16;
Matches 59; Conservative 23; Mismatches 51; Gaps 26; Indels 5;
5:

QY 85 PGAYPSSQPSAPGAYATGPGAPAGPLIVPNLPGGVWVRMLITILGTVPKPNARITA 144
DB 9 PMYHPGYP-----MPITITILGGLYPSKILLSGLTGLPSAQRPH 49
QY 145 LDFQRGNDAHFH-PRFNNRRVIVCNKLDNNKREERQ--SVFPESGKPFKIQVLV 201
DB 50 INLCSGNHIAFLNFRDEN---AVRNTQIDNFWGSEERSLPRKMPFVRGQSFVWILC 106
QY 202 EPDFKQVANDAHL-QYNHRVKKLEISKLIGSGDIDL 239
DB 107 EAHCLKVAVDQGHLEFYHRLNLFNINRLEVGDIQLT 145

RESULT 14
US-08-788-584-1
; Sequence 1, Application US/08788584
; Patent No. 5837493
; GENERAL INFORMATION:
; APPLICANT: Hillman, Jennifer L.
; APPLICANT: Goli, Surya K.
; APPLICANT: Bandman, Olga
; APPLICANT: Hawkins, Phillip R.
; APPLICANT: Petichory, Joanne R.
; TITLE OF INVENTION: NOVEL HUMAN GALECTINS
; NUMBER OF SEQUENCES: 5
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Incyte Pharmaceuticals, Inc.
; STREET: 3174 Porter Drive
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08788,584
; FILING DATE: Filed Herewith
; CLASSIFICATION: 436
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Billings, Lucy J.
; REGISTRATION NUMBER: 36,749
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-0555
; TELEFAX: 415-845-4166
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 145 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-788-584-1

Query Match 17.9%; Score 243.5; DB 2; Length 145;
Best Local Similarity 40.0%; Pred. No. 2.1e-15;
Matches 56; Conservative 23; Mismatches 50; Indels 11; Gaps 5;

QY 104 PYGAPAGPLIVPNLPGGVWVRMLITILGTVPKPNARIALDFQRGNDAHFH-PRFNE 162
DB 9 PYLSPX-----VPFGYXQGLYPSKILLSGLTGLPSAQRPHINLCSGNHIGFHLNPRFE 64
QY 163 NNRRVIVCNKLDNNKREERQ--SVFPESGKPFKIQVLVDPDFKQVANDAHL-QYNH 219
DB 65 N---AVRNTQIDNFWGSEERSLPRKMPFVRGQSFVWILCEAHLKQVAVDQGHLEFYH 121
QY 220 RVKKLEISKLIGSGDIDL 239

DB 122 RLRLNPTINRLEVGDIQLT 141
RESULT 15
US-08-946-914-11
; Sequence 11, Application US/08946914
; Patent No. 6027916
; GENERAL INFORMATION:
; APPLICANT: Ni, Jian
; APPLICANT: Gentz, Reiner L.
; APPLICANT: Ruben, Steven M.
; TITLE OF INVENTION: Galectin 8, 9, 10 and 10SV
; NUMBER OF SEQUENCES: 60
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sterne, Kessler, Goldstein, & Fox P.L.L.C.
; STREET: 1100 New York Ave., Suite 600
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20005-3934
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC Compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/946,914
; FILING DATE: Herewith
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/028,093
; FILING DATE: 09-OCT-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Steffe, Eric K.
; REGISTRATION NUMBER: 35,688
; REFERENCE/DOCKET NUMBER: 1488.0560001/EKS/SGW
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-2600
; TELEFAX: 202-371-2540
; INFORMATION FOR SEQ ID NO: 11:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 324 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-946-914-11

Query Match 17.4%; Score 236.5; DB 3; Length 324;
Best Local Similarity 35.2%; Pred. No. 2.6e-14;
Matches 68; Conservative 25; Mismatches 63; Indels 37; Gaps 10;

QY 71 GAPAGVYCPGPPSGAYPSSGQPSAPGAYATGPGAP-----AGPLI-----VPYNL 118
DB 152 GQPAASQYPGTMTIP-AYPSA-----YNNPQMNLSLPVMAGPPFIFNPPVYVG 198
QY 119 PLPGGVVPRMLITILGTVPKPNARIALDFQRGN--DVAFHF-PRFNNRRVIVCNKLD 175
DB 199 TLOGGLTARTTIIKGVVLPTAKNLIINFKVSGTGDIAFHNPRIGD----CVVRNSYMN 254
QY 176 NNNGREERSVFP-PPESGKPFKIQVLVDPDFKQVANDAHL-QYNHRVKKLEISKLIGS 233
DB 255 GWSGSEERKIPYNPFGAGQGFDLISIRGCTDRFKVQFANGHILDFSHRFQAFQVRDMLK 314
QY 234 GDIDLTASYSYMI 246
DB 315 GDITL---SYVQI 324

Search completed: May 20, 2003, 12:20:36
Job time : 31 secs

GenCore version 5.1.4_p5.4578
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OM protein - protein search, using sw model

Run on: May 20, 2003, 12:14:40 ; Search time 35 Seconds
(without alignments)
936.562 Million cell updates/sec

Title: US-09-297-040-4
Perfect score: 1357
Sequence: 1 MAFNFSLHDLALSGSGNPNPQ.....ISKLGISGIDILTSASVTMI 246

Scoring table:
Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

- Database : A_Geneseq_101002.*
- 1: /SID22/gcgdata/geneseq/geneseq-emb1/AA1980.DAT.*
 - 2: /SID22/gcgdata/geneseq/geneseq-emb1/AA1981.DAT.*
 - 3: /SID22/gcgdata/geneseq/geneseq-emb1/AA1982.DAT.*
 - 4: /SID22/gcgdata/geneseq/geneseq-emb1/AA1983.DAT.*
 - 5: /SID22/gcgdata/geneseq/geneseq-emb1/AA1984.DAT.*
 - 6: /SID22/gcgdata/geneseq/geneseq-emb1/AA1985.DAT.*
 - 7: /SID22/gcgdata/geneseq/geneseq-emb1/AA1986.DAT.*
 - 8: /SID22/gcgdata/geneseq/geneseq-emb1/AA1987.DAT.*
 - 9: /SID22/gcgdata/geneseq/geneseq-emb1/AA1988.DAT.*
 - 10: /SID22/gcgdata/geneseq/geneseq-emb1/AA1989.DAT.*
 - 11: /SID22/gcgdata/geneseq/geneseq-emb1/AA1990.DAT.*
 - 12: /SID22/gcgdata/geneseq/geneseq-emb1/AA1991.DAT.*
 - 13: /SID22/gcgdata/geneseq/geneseq-emb1/AA1992.DAT.*
 - 14: /SID22/gcgdata/geneseq/geneseq-emb1/AA1993.DAT.*
 - 15: /SID22/gcgdata/geneseq/geneseq-emb1/AA1994.DAT.*
 - 16: /SID22/gcgdata/geneseq/geneseq-emb1/AA1995.DAT.*
 - 17: /SID22/gcgdata/geneseq/geneseq-emb1/AA1996.DAT.*
 - 18: /SID22/gcgdata/geneseq/geneseq-emb1/AA1997.DAT.*
 - 19: /SID22/gcgdata/geneseq/geneseq-emb1/AA1998.DAT.*
 - 20: /SID22/gcgdata/geneseq/geneseq-emb1/AA1999.DAT.*
 - 21: /SID22/gcgdata/geneseq/geneseq-emb1/AA2000.DAT.*
 - 22: /SID22/gcgdata/geneseq/geneseq-emb1/AA2001.DAT.*
 - 23: /SID22/gcgdata/geneseq/geneseq-emb1/AA2002.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1357	100.0	246	19 AAW61955	Human galectin ami
2	1315	96.9	250	23 AAU97819	Human cell membran
3	1305	96.2	250	19 AAW71218	Beta-D-galactoside
4	1305	96.2	250	23 AAU97818	Human cell membran
5	1297	95.6	250	23 AAU97816	Human cell membran
6	1297	95.6	250	23 AAU97817	Human cell membran
7	1297	95.6	250	23 AAU97820	Human cell membran
8	1297	95.6	277	22 AAG75013	Human colon cancer
9	1194	88.0	248	12 AAR12532	Human Macrophage C
10	1082	79.7	264	12 AAR12531	Mac2.16 expression

11	1082	79.7	278	12 AAR13338	Mac-2 protein incl
12	1079	79.5	262	23 AAU97821	Rat cell membrane
13	1078	79.4	264	19 AAW71219	Beta-D-galactoside
14	1075	79.2	262	13 AAR42200	IGF binding protei
15	1064	78.4	263	23 AAU97822	Mouse cell membran
16	1060	78.1	258	19 AAW61954	Rat galectin amino
17	593	43.7	138	7 AAP60534	C-terminal of IGF-
18	314.5	23.2	341	22 AAB97171	Rainbow trout gale
19	289	21.3	355	20 AAW85664	Galectin-9 like pr
20	289	21.3	355	20 AAY06997	Galectin-9 protein
21	289	21.3	355	23 ABB77852	Amino acid sequenc
22	289	21.3	378	22 AAE13847	Human lung tumour
23	283	20.9	323	21 AAY56802	Human eosinophil c
24	283	20.9	323	23 ABB77853	Amino acid sequenc
25	283	20.9	323	23 ABB61494	Human NF-kB activa
26	282	20.8	329	23 AAU97036	Human bladder canc
27	264	19.5	311	19 AAW56504	Human galectin 9.
28	264	19.5	311	23 ABB77854	Amino acid sequenc
29	249	18.3	149	19 AAW61614	Human galectin GAL
30	246.5	18.2	168	21 AAB11899	Human colon tumour
31	246.5	18.2	168	22 AAM24496	Colon tumour relat
32	245.5	18.1	215	22 AAB85033	Protein encoded by
33	243.5	17.9	145	19 AAW61613	Human galectin GAL
34	228.5	16.8	316	21 AAY87403	Human PCTA-1 splic
35	228.5	16.8	316	22 AAB85030	Protein encoded by
36	228.5	16.8	358	21 AAY87404	Human PCTA-1 splic
37	228.5	16.8	358	22 AAB85031	Protein encoded by
38	228.5	16.8	368	21 AAY87405	Human PCTA-1 splic
39	228.5	16.8	368	22 AAB85032	Protein encoded by
40	225.5	16.6	351	22 AAG73728	Human colon cancer
41	223.5	16.5	200	19 AAW56506	Human galectin 10
42	223.5	16.5	317	17 AAU03519	Prostate carcinoma
43	223.5	16.5	317	19 AAW56505	Human galectin 10.
44	218.5	16.1	316	16 AAR75702	Rat galectin-8. R
45	215.5	15.9	323	18 AAW11841	Human galectin-4-1

ALIGNMENTS

RESULT 1
AAW61955
ID AAW61955 standard; protein; 246 AA.
XX
AC AAW61955;
XX
DT 18-SEP-1998 (first entry)
XX
DE Human galectin amino acid sequence.
XX
KW Mortalin; galectin; diabetes-mediating protein; insulin; DMP;
KW diabetes; drug screening assay.
XX
OS Homo sapiens.
XX
PN WO9820124-A2.
XX
PD 14-MAY-1998.
XX
PF 24-OCT-1997; 97WO-IB01627.
XX
PR 18-JUL-1997; 97US-0897098.
PR 25-OCT-1996; 96US-0029324.
PR 05-NOV-1996; 96US-0030088.
PR 05-NOV-1996; 96US-0030186.
XX
(ANDE/) ANDERSEN H U.
PA (CHRI/) BJERRE CHRISTENSEN U.
PA (FEYS/) FEY S J.
PA (KARL/) KARLSEN A E.
PA (LARS/) MOSE LARSEN P.
PA (NERU/) NERUP J.
PA (POCI/) POCIOT F.

XX Andersen HU, Bjerre CHRISTENSEN U, Fey SJ, Karlsen AE;
 PI Mose LARSEN P, Nerup J, Pociot F;
 XX DR
 XX WPI; 1998-286940/25.
 XX Identification of diabetes-mediating protein(s) - by transplanting
 PT insulin-secreting cells into host at risk of developing diabetes and
 PT analysing protein expression in transplanted cells
 XX PS
 XX Example 5; Fig 5; 154pp; English.
 XX This represents the amino acid sequence of murine mortalin. This is a
 CC diabetes-mediating protective protein used in the method of invention.
 CC The invention provides methods for in vivo identification of a diabetes-
 CC mediating protein (DMP) by transplanting insulin-secreting cells into
 CC host at risk of developing diabetes and analysing protein expression in
 CC transplanted cells. The DMPs are useful in drug screening assays for
 CC identifying compounds capable of modulating the development of diabetes,
 CC useful as therapeutic agents for the treatment or prevention of diabetes,
 CC and useful as targets of therapeutic agents capable of preventing or
 CC ameliorating diabetes by modulating the expression of the DMP. Changes in
 CC the expression of specific DMPs is diagnostically useful as indicator of
 CC the development of diabetes.
 XX SQ Sequence 246 AA;
 Query Match 100.0%; Score 1357; DB 19; Length 246;
 Best Local Similarity 100.0%; Pred. No. 5.9e-100;
 Matches 246; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MADNFSLHDALSGSGNPNQGWPGAWGNQAGAGYFGASYPGQAPPG 60
 DB 1 MADNFSLHDALSGSGNPNQGWPGAWGNQAGAGYFGASYPGQAPPG 60
 QY 61 AYHGAPGAYGAPAGYVPGPPSGGAYPSSGQPSAPGATGYPGAPGLIVPNLPL 120
 DB 61 AYHGAPGAYGAPAGYVPGPPSGGAYPSSGQPSAPGATGYPGAPGLIVPNLPL 120
 QY 121 PGVVPRLITILGTVPKNANRIALDFQGNDAVFHFRFNNRRNVIVCNKLDNNWGR 180
 DB 121 PGVVPRLITILGTVPKNANRIALDFQGNDAVFHFRFNNRRNVIVCNKLDNNWGR 180
 QY 181 EEROSVFPFESGKPFKIQVLVEPDHFKVAVNDAHLOYNHRVKKLNETSKLIGSDILTS 240
 DB 181 EEROSVFPFESGKPFKIQVLVEPDHFKVAVNDAHLOYNHRVKKLNETSKLIGSDILTS 240
 QY 241 ASYTM 246
 DB 241 ASYTM 246
 RESULT 2
 AAU97819
 ID AAU97819 standard; Protein; 250 AA.
 XX AAU97819;
 AC AAU97819;
 XX 27-AUG-2002 (first entry)
 XX Human cell membrane anchor protein galectin-3 #4.
 XX Galectin-3; cell membrane anchor protein; Ras; antisense technology;
 KW farnesylated isoform; H-Ras; K-Ras 4A; K-Ras 4B; N-Ras;
 KW mitosis disorder; cancer; non-malignancy; autoimmune disease;
 KW type 1 diabetes; lupus; multiple sclerosis; cirrhosis; graft rejection;
 KW atherosclerosis; polycystic kidney; post-angioplasty restenosis;
 KW cytostatic; immunosuppressive; antidiabetic; antiatherosclerotic;
 KW neuroprotective; vasotropic; hepatotropic; human.
 XX Homo sapiens.
 OS
 XX WO200229031-A2.
 PN

XX 11-APR-2002.
 XX 01-OCT-2001; 2001WO-IL00918.
 XX 04-OCT-2000; 2000US-237858P.
 XX (UYRA-) UNIV RAMOT APPLIED RES & IND DEV LTD.
 XX KIoog Y, Haklai R, Paz A, El Ad-Sfadia G, Ballan E;
 XX WPI; 2002-435333/46.
 XX Identifying anchor proteins that bind Ras protein, by producing
 PT complexes of Ras and cell membrane proteins in the presence and absence
 PT of a Ras antagonist and identifying a complex disrupted by the Ras
 PT antagonist
 XX Disclosure; Page 13; 62pp; English.
 XX The invention describes a method of identifying cell membrane anchor
 CC proteins that bind a Ras protein, involving preparing 2 reaction mixtures
 CC where one mixture has a Ras antagonist. A cross linking agent is added,
 CC and complexes between Ras protein and other proteins are produced. The
 CC complexes are then separated and the proteins binding to Ras are
 CC identified. The invention also describes a method useful for identifying
 CC drug candidates that inhibit aberrant Ras activity. An antisense compound
 CC comprising at least one phosphorothioate-modified nucleotide is useful
 CC for disrupting aberrant Ras activity in vivo, by infusing the antisense
 CC compound into a patient exhibiting this problem. The method is also
 CC useful for identifying anchor proteins for the farnesylated isoforms of
 CC H-Ras, K-Ras 4A, K-Ras 4B and N-Ras, whose mutated forms are known to be
 CC oncogenic. Reducing or inhibiting aberrant Ras activity in vivo is useful
 CC for treating diseases characterised by uncontrolled mitosis, including
 CC cancers and various non-malignancies such as autoimmune disease (e.g.
 CC type 1 diabetes, lupus and multiple sclerosis), cirrhosis, graft
 CC rejection, atherosclerosis, polycystic kidneys and post-angioplasty
 CC restenosis. This sequence encodes a galectin-3, a cell-membrane anchor
 CC protein that binds an isoform of Ras.
 XX SQ Sequence 250 AA;
 Query Match 96.9%; Score 1315; DB 23; Length 250;
 Best Local Similarity 98.4%; Pred. No. 1.3e-96;
 Matches 246; Conservative 0; Mismatches 0; Indels 4; Gaps 4;
 QY 1 MADNFSLHDALSGSGNPNQGWPGAWGNQAGAGYFGASYPGQAPPG 59
 DB 1 MADNFSLHDALSGSGNPNQGWPGAWGNQAGAGYFGASYPGQAPPG 60
 QY 60 GAYHGAPGAYGAPAGYVPGPPSGGAYPSSGQPSAPGAY-ATGPGYCAPGLIVPNL 118
 DB 61 GAYHGAPGAYGAPAGYVPGPPSGGAYPSSGQPSAPGAYPATGPGYCAPGLIVPNL 120
 QY 119 PLPGGVVPRMLITILGTVPKNANRIALDFQGNDAVFHFRFNNRRNVIVCNKLDNN 177
 DB 121 PLPGGVVPRMLITILGTVPKNANRIALDFQGNDAVFHFRFNNRRNVIVCNKLDNN 180
 QY 178 WGREEROSVFPFESGKPFKIQVLVEPDHFKVAVNDAH-LOYNHRVKKLNETSKLIGSDI 236
 DB 181 WGREEROSVFPFESGKPFKIQVLVEPDHFKVAVNDAHLOYNHRVKKLNETSKLIGSDI 240
 QY 237 DLTSASYTM 246
 DB 241 DLTSASYTM 250
 RESULT 3
 AAU71218
 ID AAU71218 standard; Protein; 250 AA.
 XX AAU71218;
 AC AAU71218;
 XX

DT 30-OCT-1998 (first entry)
 XX Beta-D-galactoside-binding protein designated L-31-gal-lectin.
 XX Beta-D-galactoside-binding protein; L-31-gal-lectin;
 KW metastatic potential; antibody.
 KW
 XX Homo sapiens.
 OS
 XX US5801002-A.
 PN
 XX 01-SEP-1998.
 PD
 XX 22-NOV-1995; 95US-0562311.
 PF
 XX 26-JAN-1994; 94US-0188225.
 PR
 XX 06-JAN-1989; 89US-0294249.
 PR
 XX 05-APR-1991; 91US-0681242.
 PR
 XX 22-NOV-1995; 95US-0562311.
 XX
 PA (KARM-) KARMANOS CANCER INST BARBARA ANN.
 XX
 XX Raz A;
 XX
 DR WPI; 1998-494766/42.
 DR N-PSDB; AAV54735.
 XX
 PT Test for metastatic potential of cell sample - by measuring binding
 of antibody to L-31-gal-lectin on cell surface
 XX
 PS Claim 1: Fig 6A-B; 24pp; English.
 XX
 CC The present sequence represents a beta-D-galactoside-binding protein
 designated L-31-gal-lectin. The sequence is derived from clone 1. The
 CC specification describes a method for testing a cell sample for
 CC metastatic potential. The method comprises contacting the sample with
 CC a labelled antibody that binds to endogenous cell-surface
 CC L-31-gal-lectin, removing unbound antibody, and determining the amount
 CC of bound antibody as a measure of L-31-gal-lectin expression, where the
 CC metastatic potential increases as the level of L-31-gal-lectin
 CC expression increases. The antibody is produced by immunisation with a
 CC L-31-gal-lectin protein.
 XX
 SQ Sequence 250 AA;
 Query Match 96.2%; Score 1305; DB 19; Length 250;
 Best Local Similarity 97.6%; Pred. No. 8e-96;
 Matches 244; Conservative 0; Mismatches 2; Indels 4; Gaps 4;
 Qy 1 MADNFSLDALSGSGNPNPQGWPGWAGNQAGAGYPGASYPG-YPGQAPPGAYPGQAPP 59
 Db 1 MADNFSLDALSGSGNPNPQGWPGWAGNQAGAGYPGASYPG-YPGQAPPGAYPGQAPP 60
 Qy 60 GAYHGAPGAYPGAPAGYVPGPPSGPGAYPSSGQPSAPGAY-ATGPGYAPAGPLIVPNL 118
 Db 61 GAYHGAPGAYPGAPAGYVPGPPSGPGAYPSSGQPSAPGAYPATGPGYAPAGPLIVPNL 120
 Qy 119 PLPGGVPRMLITILGTVKPNANRIALDFQGNDAVFHF-PFENNENRRVIVCNKLDNN 177
 Db 121 PLPGGVPRMLITILGTVKPNANRIALDFQGNDAVFHFENFRNENRRVIVCNKLDNN 180
 Qy 178 WGREERQSVFFESGKPKFIOVLPEDFKFAVNDNAH-LOYNHRVKKLNKLSIGSDI 236
 Db 181 WGREERQSVFFESGKPKFIOVLPEDFKFAVNDNAH-LOYNHRVKKLNKLSIGSDI 240
 Qy 237 DLTSASYTMI 246
 Db 241 DLTSASYTMI 250
 RESULT 4
 AAU97818
 ID AAU97818 standard; Protein: 250 AA.

XX AAU97818;
 AC 27-AUG-2002 (first entry)
 DT
 XX Human cell membrane anchor protein galectin-3 #3.
 DE
 XX Galectin-3; cell membrane anchor protein; Ras; antisense technology;
 KW farnesylated isoform; H-Ras; K-Ras 4A; K-Ras 4B; N-Ras;
 KW mitosis disorder; cancer; non-malignancy; autoimmune disease;
 KW type 1 diabetes; lupus; multiple sclerosis; cirrhosis; graft rejection;
 KW atherosclerosis; polycystic kidney; post-angioplasty restenosis;
 KW cytostatic; immunosuppressive; antidiabetic; antiatherosclerotic;
 KW neuroprotective; vasotropic; hepatotropic; human.
 XX
 OS Homo sapiens.
 XX
 PN WO200229031-A2.
 XX
 PD 11-APR-2002.
 PF
 XX 01-OCT-2001; 2001WO-IL00918.
 PR
 XX 04-OCT-2000; 2000US-237858P.
 PA (UYRA-) UNIV RAMOT APPLIED RES & IND DEV LTD.
 XX
 XX Kloog Y, Haklai R, Paz A, El Ad-Sfadia G, Ballan E;
 PI
 XX WPI; 2002-435333/46.
 DR
 XX
 PT Identifying anchor proteins that bind Ras protein, by producing
 complexes of Ras and cell membrane proteins in the presence and absence
 of a Ras antagonist and identifying a complex disrupted by the Ras
 PT antagonist
 XX
 PS Disclosure; Page 13; 62pp; English.
 XX
 CC The invention describes a method of identifying cell membrane anchor
 proteins that bind a Ras protein, involving preparing 2 reaction mixtures
 where one mixture has a Ras antagonist. A cross linking agent is added,
 and complexes between Ras protein and other proteins are produced. The
 CC complexes are then separated and the proteins binding to Ras are
 CC identified. The invention also describes a method useful for identifying
 CC drug candidates that inhibit aberrant Ras activity. An antisense compound
 comprising at least one phosphorothioate-modified nucleotide is useful
 CC for disrupting aberrant Ras activity in vivo, by infusing the antisense
 CC compound into a patient exhibiting this problem. The method is also
 CC useful for identifying anchor proteins for the farnesylated isoforms of
 CC H-Ras, K-Ras 4A, K-Ras 4B and N-Ras, whose mutated forms are known to be
 CC oncogenic. Reducing or inhibiting aberrant Ras activity in vivo is useful
 CC for treating diseases characterised by uncontrolled mitosis, including
 CC cancers and various non-malignancies such as autoimmune disease (e.g.
 CC type 1 diabetes, lupus and multiple sclerosis), cirrhosis, graft
 CC rejection, atherosclerosis, polycystic kidneys and post-angioplasty
 CC restenosis. This sequence encodes a galectin-3, a cell-membrane anchor
 CC protein that binds an isoform of Ras.
 XX
 SQ Sequence 250 AA;
 Query Match 96.2%; Score 1305; DB 23; Length 250;
 Best Local Similarity 98.0%; Pred. No. 8e-96;
 Matches 245; Conservative 0; Mismatches 1; Indels 4; Gaps 4;
 Qy 1 MADNFSLDALSGSGNPNPQGWPGWAGNQAGAGYPGASYPG-YPGQAPPGAYPGQAPP 59
 Db 1 MADNFSLDALSGSGNPNPQGWPGWAGNQAGAGYPGASYPG-YPGQAPPGAYPGQAPP 60
 Qy 60 GAYHGAPGAYPGAPAGYVPGPPSGPGAYPSSGQPSAPGAY-ATGPGYAPAGPLIVPNL 118
 Db 61 GAYHGAPGAYPGAPAGYVPGPPSGPGAYPSSGQPSAPGAYPATGPGYAPAGPLIVPNL 120
 Qy 119 PLPGGVPRMLITILGTVKPNANRIALDFQGNDAVFHF-PFENNENRRVIVCNKLDNN 177

Db 121 PLPGGVVPRMLITILGTVKENANRIALDFQNDVAFHFNNRNNRRVIVCNKLDNN 180
 QY 178 WGREERQSVFFESGPKFKIQVLVEPDHFKVAVNDAH-LQYNHRVKKLNEISKLGISGDI 236
 Db 181 WGREERQSVFFESGPKFKIQVLVEPDHFKVAVNDAHLLQYNHRVKKLNEISKLGISGDI 240
 QY 237 DLTSASYTMI 246
 Db 241 DLTSASYTMI 250
 RESULT 5
 ID AAU97816 standard; Protein; 250 AA.
 XX AC AAU97816:
 DT 27-AUG-2002 (first entry)
 XX Human cell membrane anchor protein galectin-3 #1.
 DE Galectin-3; cell membrane anchor protein; Ras; antisense technology;
 KW farnesylated isoform; H-Ras; K-Ras 4A; K-Ras 4B; N-Ras;
 KW mitosis disorder; cancer; non-malignancy; autoimmune disease;
 KW type 1 diabetes; lupus; multiple sclerosis; cirrhosis; graft rejection;
 KW atherosclerosis; polycystic kidney; post-angioplasty restenosis;
 KW cytostatic; immunosuppressive; antidiabetic; antiatherosclerotic;
 KW neuroprotective; vasotropic; hepatotropic; human.
 XX Homo sapiens.
 OS
 XX WO200229031-A2.
 PN 11-APR-2002.
 PD
 XX 01-OCT-2001; 2001WO-IL00918.
 XX
 PF 04-OCT-2000; 2000US-237858P.
 PR (UYRA-) UNIV RAMOT APPLIED RES & IND DEV LTD.
 XX KIoog Y, Haklai R, Paz A, El Ad-Sfadia G, Ballan E;
 PI WPI; 2002-435333/46.
 DR N-PSDB; ABK52348.
 XX
 XX Identifying anchor proteins that bind Ras protein, by producing
 PT complexes of Ras and cell membrane proteins in the presence and absence
 PT of a Ras antagonist and identifying a complex disrupted by the Ras
 PT antagonist
 XX Disclosure; Page 11-12; 62pp; English.
 XX
 XX The invention describes a method of identifying cell membrane anchor
 CC proteins that bind a Ras protein, involving preparing 2 reaction mixtures
 CC where one mixture has a Ras antagonist. A cross linking agent is added,
 CC and complexes between Ras protein and other proteins are produced. The
 CC complexes are then separated and the proteins binding to Ras are
 CC identified. The invention also describes a method useful for identifying
 CC drug candidates that inhibit aberrant Ras activity. An antisense compound
 CC comprising at least one phosphorothioate-modified nucleotide is useful
 CC for disrupting aberrant Ras activity in vivo, by infusing the antisense
 CC compound into a patient exhibiting this problem. The method is also
 CC useful for identifying anchor proteins for the farnesylated isoforms of
 CC H-Ras, K-Ras 4A, K-Ras 4B and N-Ras, whose mutated forms are known to be
 CC oncogenic. Reducing or inhibiting aberrant Ras activity in vivo is useful
 CC for treating diseases characterised by uncontrolled mitosis, including
 CC cancers and various non-malignancies such as autoimmune disease (e.g.
 CC type 1 diabetes, lupus and multiple sclerosis), cirrhosis, graft
 CC rejection, atherosclerosis, polycystic kidneys and post-angioplasty
 CC restenosis. This sequence encodes a galectin-3, a cell-membrane anchor
 CC protein that binds an isoform of Ras.

XX SQ Sequence 250 AA;
 Query Match 95.6%; Score 1297; DB 23; Length 250;
 Best Local Similarity 97.6%; Pred. No. 3.5e-95;
 Matches 244; Conservative 0; Mismatches 2; Indels 4; Gaps 4;
 QY 1 MADNFSLHDALSGGNPNQGWFGANGNQAGAGGYPGASYPG-YPCQAPPGAYPGQAPP 59
 Db 1 MADNFSLHDALSGGNPNQGWFGANGNQAGAGGYPGASYPGAYPGQAPP 60
 QY 60 GAYHGAPGAYPGAPAPGVYPPGPGGAYPSSGPGASGAPGAY-ATGPVGAPAGPLIVPYNL 118
 Db 61 GAYPGAPGAYPGAPGVYPPGPGGAYPSSGPGATGATGATGATGATGATGATGATGATGAT 120
 QY 119 PLPGGVVPRMLITILGTVKENANRIALDFQNDVAFHF-PRENENNRVIVCNKLDNN 177
 Db 121 PLPGGVVPRMLITILGTVKENANRIALDFQNDVAFHFNNRNNRRVIVCNKLDNN 180
 QY 178 WGREERQSVFFESGPKFKIQVLVEPDHFKVAVNDAH-LQYNHRVKKLNEISKLGISGDI 236
 Db 181 WGREERQSVFFESGPKFKIQVLVEPDHFKVAVNDAHLLQYNHRVKKLNEISKLGISGDI 240
 QY 237 DLTSASYTMI 246
 Db 241 DLTSASYTMI 250
 RESULT 6
 ID AAU97817 standard; Protein; 250 AA.
 XX AC AAU97817:
 DT 27-AUG-2002 (first entry)
 XX Human cell membrane anchor protein galectin-3 #2.
 DE
 XX Galectin-3; cell membrane anchor protein; Ras; antisense technology;
 KW farnesylated isoform; H-Ras; K-Ras 4A; K-Ras 4B; N-Ras;
 KW mitosis disorder; cancer; non-malignancy; autoimmune disease;
 KW type 1 diabetes; lupus; multiple sclerosis; cirrhosis; graft rejection;
 KW atherosclerosis; polycystic kidney; post-angioplasty restenosis;
 KW cytostatic; immunosuppressive; antidiabetic; antiatherosclerotic;
 KW neuroprotective; vasotropic; hepatotropic; human.
 XX Homo sapiens.
 OS
 XX WO200229031-A2.
 PN 11-APR-2002.
 PD
 XX 01-OCT-2001; 2001WO-IL00918.
 XX
 PF 04-OCT-2000; 2000US-237858P.
 PR (UYRA-) UNIV RAMOT APPLIED RES & IND DEV LTD.
 XX KIoog Y, Haklai R, Paz A, El Ad-Sfadia G, Ballan E;
 PI WPI; 2002-435333/46.
 DR N-PSDB; ABK52349.
 XX
 XX Identifying anchor proteins that bind Ras protein, by producing
 PT complexes of Ras and cell membrane proteins in the presence and absence
 PT of a Ras antagonist and identifying a complex disrupted by the Ras
 PT antagonist
 XX Disclosure; Page 12; 62pp; English.
 XX
 XX The invention describes a method of identifying cell membrane anchor
 CC proteins that bind a Ras protein, involving preparing 2 reaction mixtures
 CC where one mixture has a Ras antagonist. A cross linking agent is added,
 CC and complexes between Ras protein and other proteins are produced. The
 CC complexes are then separated and the proteins binding to Ras are
 CC identified. The invention also describes a method useful for identifying
 CC drug candidates that inhibit aberrant Ras activity. An antisense compound
 CC comprising at least one phosphorothioate-modified nucleotide is useful
 CC for disrupting aberrant Ras activity in vivo, by infusing the antisense
 CC compound into a patient exhibiting this problem. The method is also
 CC useful for identifying anchor proteins for the farnesylated isoforms of
 CC H-Ras, K-Ras 4A, K-Ras 4B and N-Ras, whose mutated forms are known to be
 CC oncogenic. Reducing or inhibiting aberrant Ras activity in vivo is useful
 CC for treating diseases characterised by uncontrolled mitosis, including
 CC cancers and various non-malignancies such as autoimmune disease (e.g.
 CC type 1 diabetes, lupus and multiple sclerosis), cirrhosis, graft
 CC rejection, atherosclerosis, polycystic kidneys and post-angioplasty
 CC restenosis. This sequence encodes a galectin-3, a cell-membrane anchor
 CC protein that binds an isoform of Ras.

CC and complexes between Ras protein and other proteins are produced. The
 CC complexes are then separated and the proteins binding to Ras are
 CC identified. The invention also describes a method useful for identifying
 CC drug candidates that inhibit aberrant Ras activity. An antisense compound
 CC comprising at least one phosphorothioate-modified nucleotide is useful
 CC for disrupting aberrant Ras activity in vivo, by infusing the antisense
 CC compound into a patient exhibiting this problem. The method is also
 CC useful for identifying anchor proteins for the farnesylated isoforms of
 CC H-Ras, K-Ras 4A, K-Ras 4B and N-Ras, whose mutated forms are known to be
 CC oncogenic. Reducing or inhibiting aberrant Ras activity in vivo is useful
 CC for treating diseases characterised by uncontrolled mitosis, including
 CC cancers and various non-malignancies such as autoimmune disease (e.g.
 CC type 1 diabetes, lupus and multiple sclerosis), cirrhosis, graft
 CC rejection, atherosclerosis, polycystic kidneys and post-angioplasty
 CC restenosis. This sequence encodes a galectin-3, a cell-membrane anchor
 CC protein that binds an isoform of Ras.

XX Sequence 250 AA;

Query Match 95.6%; Score 1297; DB 23; Length 250;
 Best Local Similarity 97.6%; Pred. No. 3.5e-95;
 Matches 244; Conservative 0; Mismatches 2; Indels 4; Gaps 4;

QY 1 MADNFSLDALSSGNNPQGWPGAGNQPAGAGGYPGASYPG-YPGQAPPGAYPGQAPP 59
 DB 1 MADNFSLDALSSGNNPQGWPGAGNQPAGAGGYPGASYPG-YPGQAPPGAYPGQAPP 60
 QY 60 GAYHGAFCAYPGAPAGYVPGPPSGGAYPGSSGQPSAPGAY-ATGPGYAPAGPLIVPNL 118
 DB 61 GAYHGAFCAYPGAPAGYVPGPPSGGAYPGSSGQPSAPGAY-ATGPGYAPAGPLIVPNL 120
 QY 119 PLPGGVPRMLITILGTVKPNANRIALDFQRGNDAVFHF-PFNNENRRVIVCNKLDNN 177
 DB 121 PLPGGVPRMLITILGTVKPNANRIALDFQRGNDAVFHF-PFNNENRRVIVCNKLDNN 180
 QY 178 WGREERQSVFPESGKPFKIQVLVEPDHFKVAVNDAH-LOYNHRVKKLNEISKLIGSDI 236
 DB 181 WGREERQSVFPESGKPFKIQVLVEPDHFKVAVNDAH-LOYNHRVKKLNEISKLIGSDI 240
 QY 237 DLTSASYTMI 246
 DB 241 DLTSASYTMI 250

RESULT 7
 AAU97820
 ID AAU97820 standard; Protein; 250 AA.

XX
 AC AAU97820;
 XX
 DT 27-AUG-2002 (first entry)
 XX
 DE Human cell membrane anchor protein galectin-3 #5.

XX Galectin-3; cell membrane anchor protein; Ras; antisense technology;
 KW farnesylated isoform; H-Ras; K-Ras 4A; K-Ras 4B; N-Ras;
 KW mitosis disorder; cancer; non-malignancy; autoimmune disease;
 KW type 1 diabetes; lupus; multiple sclerosis; cirrhosis; graft rejection;
 KW atherosclerosis; polycystic kidney; post-angioplasty restenosis;
 KW cytostatic; immunosuppressive; antidiabetic; antiatherosclerotic;
 KW neuroprotective; vasotropic; hepatotropic; human.

XX Homo sapiens.

XX WO200229031-A2.

XX 11-APR-2002.

XX 01-OCT-2001; 2001WO-IL00918.

XX 04-OCT-2000; 2000US-237859P.

XX (UYRA-) UNIV RAMOT APPLIED RES & IND DEV LTD.

XX
 PI
 XX
 DR
 XX

WPI; 2002-435333/46.

XX Identifying anchor proteins that bind Ras protein, by producing
 PT complexes of Ras and cell membrane proteins in the presence and absence
 PT of a Ras antagonist and identifying a complex disrupted by the Ras
 PT antagonist

XX Disclosure; Page 14; 62pp; English.

XX The invention describes a method of identifying cell membrane anchor
 CC proteins that bind a Ras protein, involving preparing 2 reaction mixtures
 CC where one mixture has a Ras antagonist. A cross linking agent is added,
 CC and complexes between Ras protein and other proteins are produced. The
 CC complexes are then separated and the proteins binding to Ras are
 CC identified. The invention also describes a method useful for identifying
 CC drug candidates that inhibit aberrant Ras activity. An antisense compound
 CC comprising at least one phosphorothioate-modified nucleotide is useful
 CC for disrupting aberrant Ras activity in vivo, by infusing the antisense
 CC compound into a patient exhibiting this problem. The method is also
 CC useful for identifying anchor proteins for the farnesylated isoforms of
 CC H-Ras, K-Ras 4A, K-Ras 4B and N-Ras, whose mutated forms are known to be
 CC oncogenic. Reducing or inhibiting aberrant Ras activity in vivo is useful
 CC for treating diseases characterised by uncontrolled mitosis, including
 CC cancers and various non-malignancies such as autoimmune disease (e.g.
 CC type 1 diabetes, lupus and multiple sclerosis), cirrhosis, graft
 CC rejection, atherosclerosis, polycystic kidneys and post-angioplasty
 CC restenosis. This sequence encodes a galectin-3, a cell-membrane anchor
 CC protein that binds an isoform of Ras.

XX Sequence 250 AA;

Query Match 95.6%; Score 1297; DB 23; Length 250;
 Best Local Similarity 97.6%; Pred. No. 3.5e-95;
 Matches 244; Conservative 0; Mismatches 2; Indels 4; Gaps 4;

QY 1 MADNFSLDALSSGNNPQGWPGAGNQPAGAGGYPGASYPG-YPGQAPPGAYPGQAPP 59
 DB 1 MADNFSLDALSSGNNPQGWPGAGNQPAGAGGYPGASYPG-YPGQAPPGAYPGQAPP 60
 QY 60 GAYHGAFCAYPGAPAGYVPGPPSGGAYPGSSGQPSAPGAY-ATGPGYAPAGPLIVPNL 118
 DB 61 GAYHGAFCAYPGAPAGYVPGPPSGGAYPGSSGQPSAPGAY-ATGPGYAPAGPLIVPNL 120
 QY 119 PLPGGVPRMLITILGTVKPNANRIALDFQRGNDAVFHF-PFNNENRRVIVCNKLDNN 177
 DB 121 PLPGGVPRMLITILGTVKPNANRIALDFQRGNDAVFHF-PFNNENRRVIVCNKLDNN 180
 QY 178 WGREERQSVFPESGKPFKIQVLVEPDHFKVAVNDAH-LOYNHRVKKLNEISKLIGSDI 236
 DB 181 WGREERQSVFPESGKPFKIQVLVEPDHFKVAVNDAH-LOYNHRVKKLNEISKLIGSDI 240
 QY 237 DLTSASYTMI 246
 DB 241 DLTSASYTMI 250

RESULT 8

AAG75013

ID AAG75013 standard; Protein; 277 AA.

XX AAG75013;

XX 03-SEP-2001 (first entry)

XX Human colon cancer antigen protein SEQ ID NO:5777.

XX Human; colon cancer; colon cancer antigen; diagnosis; detection;
 KW colorectal carcinoma; chromosome 14.

XX Homo sapiens.

Db	117	AGPGYGVAGPLTVYDPLPGGVMPRLITINGTVKPNANRVLDFDRGNDVAFHFNR	17			
QY	160	FNENNRVIVCNTKLDNNNGREERQSVFFESGKPKIQVLVDPDFKVAVNDAAH-LOYN	218			
Db	177	FNENNRVIVCNTKQDNNNGKEERQSAFFESGKPKIQVLVDEADFKVAVNDAAHLQIN	236			
QY	219	HRVKKLEIKSGISGDDITLSASYMI	246			
Db	237	HRMKNLREISQLSGISGDDITLSANHAMI	264			
RESULT 11						
AAR13338						
ID	AAR13338 standard; Protein; 278 AA.					
XX	AAR13338;					
DT	12-SEP-1991 (first entry)					
XX	Mac-2 protein including putative signal sequence.					
DE						
XX	HMEBP; leishmaniasis; Mouse Mac-2; laminin.					
KW						
XX	Mus musculus.					
OS						
XX						
XX	Key	Location/Qualifiers				
FT	Peptide	1..14				
FT		/label= putative signal peptide				
FT		/note= "Met(1) is encoded by Cys"				
FT	Protein	15..278				
FT		/label= Mac-2				
XX						
PN	W09108290-A.					
XX						
PD	13-JUN-1991.					
XX						
PF	29-NOV-1990; 90WO-US06948.					
XX						
PR	14-SEP-1990; 90US-0582628.					
XX						
PR	30-NOV-1989; 89US-0444195.					
XX						
PA	(GEO-) GEN HOSPITAL CORP.					
PI						
PI	Pillai S, Cherayil BJ;					
DR	WPI; 1991-193196/26.					
DR	N-PSDB; AAQ12210.					
XX						
PT	Recombinant gene encoding human macrophage carbohydrate -					
PT	Ige-binding protein and antibody used to treat, diagnose and					
PT	prevent e.g. inflammatory bowel disorder, leishmaniasis, hayfever					
PT	and bronchial					
XX						
PS	Disclosure; Fig 2D; 36pp; English.					
XX						
CC	This sequence is identical to that deduced from clone Mac 2.16 (see					
CC	AAR12531), except for the putative signal peptide. Mac 2.16 itself					
CC	does not encode a signal peptide, but Mac-2 protein newly synthesised					
CC	by mouse inflammatory peritoneal macrophages was detected in the					
CC	extracellular medium. Clone Mac 2.9 (from which this sequence was					
CC	deduced) was thus analysed for presence of a signal sequence.					
CC	See also AAQ12207 (for Mac 2.16), AAQ12209, AAQ12211.					
XX						
XX						
SQ	Sequence 278 AA;					
Query Match 79.7%; Score 1082; DB 12; Length 278;						
Best Local Similarity 78.0%; Pred. No. 4.3e-78;						
Matches 209; Conservative 16; Mismatches 17; Indels 26; Gaps						
QY	1	MADNFSLHDSGPNPQCFWPGANGNQPAGAGGYPGASYPG-YPGQAPPGAYPGQAPP	59			
Db	15	MADSFSLDALAGSNPNQGYPGANGNP-GAGGYFGAAYPGAYPGQAPP	73			

QY 60 GAYHG-----APGAYGPAGPVPPGPGSGGAYSPGQSPAGAY----- 100
DB 74 GATPGQAPPAYPGPTAPGAYPGTAPGAYPGQA-PAFP--GQPCAGAYPQCSGGYP 130
QY 101 ATGPGAGAGPLIVPNLPLPGGVVPRMLITILGTVPKPNANRIALDFQGNDAVAFHF-PR 159
DB 131 AAGPYGVAGPLTVPYDLPLPGGVMPRLITITGTVPKPNANRIALDFQGNDAVAFHF-PR 190
QY 160 FENNNRRVIVCNTKLDNNWGREERQSVFPESGKPKIQVLVEADHFKVAVNDAAH-LOYN 218
DB 191 FENNNRRVIVCNTKLDNNWGREERQSVFPESGKPKIQVLVEADHFKVAVNDAAHLLQYN 250
QY 219 HRVKNLNEISQLSGDITLTSASYMI 246
DB 251 HRMKNLREISQLSGDITLTSANHAMI 278
RESULT 12
AAU97821
ID AAU97821 standard; Protein; 262 AA.
XX
AC AAU97821;
XX
DT 27-AUG-2002 (first entry)
XX
DE Rat cell membrane anchor protein galectin-3.
XX
KW Galectin-3; cell membrane anchor protein; Ras; antisense technology;
KW farnesylated isoform; H-Ras; K-Ras 4A; K-Ras 4B; N-Ras;
KW mitosis disorder; cancer; non-malignancy; autoimmune disease;
KW type 1 diabetes; lupus; multiple sclerosis; cirrhosis; graft rejection;
KW atherosclerosis; polycystic kidney; post-angioplasty restenosis;
KW cytostatic; immunosuppressive; antidiabetic; antiatherosclerotic;
KW neuroprotective; vasotropic; hepatotropic; rat.
XX
OS Rattus sp.
XX
PN WO200229031-A2.
XX
PD 11-APR-2002.
XX
PF 01-OCT-2001; 2001WO-IL00918.
XX
PR 04-OCT-2000; 2000US-237858P.
XX
PA (UVRA-) UNIV RAMOT APPLIED RES & IND DEV LTD.
XX
PI Kloor Y, Haklai R, Paz A, El Ad-Sfadia G, Ballan E;
XX
DR WPI; 2002-435333/46.
XX
PT Identifying anchor proteins that bind Ras protein, by producing
PT complexes of Ras and cell membrane proteins in the presence and absence
PT of a Ras antagonist and identifying a complex disrupted by the Ras
XX antagonist
PS Disclosure; Page 14; 62pp; English.
XX
CC The invention describes a method of identifying cell membrane anchor
CC proteins that bind a Ras protein, involving preparing 2 reaction mixtures
CC where one mixture has a Ras antagonist. A cross linking agent is added,
CC and complexes between Ras protein and other proteins are produced. The
CC complexes are then separated and the proteins binding to Ras are
CC identified. The invention also describes a method useful for identifying
CC drug candidates that inhibit aberrant Ras activity. An antisense compound
CC comprising at least one phosphorothioate-modified nucleotide is useful
CC for disrupting aberrant Ras activity in vivo, by infusing the antisense
CC compound into a patient exhibiting this problem. The method is also
CC useful for identifying anchor proteins for the farnesylated isoforms of
CC H-Ras, K-Ras 4A, K-Ras 4B and N-Ras, whose mutated forms are known to be
CC oncogenic. Reducing or inhibiting aberrant Ras activity in vivo is useful
CC for treating diseases characterised by uncontrolled mitosis, including
CC cancers and various non-malignancies such as autoimmune disease (e.g.

CC type 1 diabetes, lupus and multiple sclerosis), cirrhosis, graft
CC rejection, atherosclerosis, polycystic kidneys and post-angioplasty
CC restenosis. This sequence encodes a galectin-3, a cell-membrane anchor
CC protein that binds an isoform of Ras.
XX
SQ Sequence 262 AA;
Query Match 79.5%; Score 1079; DB 23; Length 262;
Best Local Similarity 77.9%; Pred. No. 7e-78;
Matches 205; Conservative 16; Mismatches 24; Indels 18; Gaps 7;
QY 1 MADNFSLDALSGSNPNQGWPGWAGNQPAGAGGYPGASYPG-YPGQAPPAYPGQAPP 59
DB 1 MADGFSLDALAGSNPNQGWPGWAGNQP-GAGGYPGASYPGAYPGQAPPYPGQAPP 59
QY 60 GAYHG-----APGAYGPAGPVPPGPGSGGAYSPGQSPAGAY----- 105
DB 60 SAYPGTGPSAYPGPTAPGAYPGTAPGAYPGQPGGAYPSAPGAYPATGPF 119
QY 106 GAPAGPLIVPNLPLPGGVVPRMLITILGTVPKPNANRIALDFQGNDAVAFHF-PR 164
DB 120 GAPTGPLTVPYDMLPGGVMPRLITITGTVPKPNANSITLNFKKGNDIAFHFNPRENN 179
QY 165 RRIVCNTKLDNNWGREERQSVFPESGKPKIQVLVEADHFKVAVNDAAH-LOYNHRVK 223
DB 180 RRIVCNTKLDNNWGREERQSVFPESGKPKIQVLVEADHFKVAVNDVHLLQYNHRMKN 239
QY 224 LNEISKLISGDIIDLTASYMI 246
DB 240 LREISQLGIIDITLTSASHAMI 262
RESULT 13
AAW71219
ID AAW71219 standard; Protein; 264 AA.
XX
AC AAW71219;
XX
DT 30-OCT-1998 (first entry)
XX
DE Beta-D-galactoside-binding protein designated L-31-gal-lectin.
XX
KW Beta-D-galactoside-binding protein; L-31-gal-lectin;
KW metastatic potential; antibody.
XX
OS Homo sapiens.
XX
PN US5801002-A.
XX
PD 01-SEP-1998.
XX
PF 22-NOV-1995; 95US-0562311.
XX
PR 26-JAN-1994; 94US-0188225.
PR 06-JAN-1989; 89US-0294249.
PR 05-APR-1991; 91US-0681242.
PR 22-NOV-1995; 95US-0562311.
XX
PA (KARM-) KARMANOS CANCER INST BARBARA ANN.
XX
PI Raz A;
XX
DR WPI; 1998-494766/42.
DR N-PSDB; AAV34736.
XX
PT Test for metastatic potential of cell sample - by measuring binding
PT of antibody to L-31-gal-lectin on cell surface
XX
PS Disclosure; Fig 3A-B; 24pp; English.
XX
CC The present sequence represents a beta-D-galactoside-binding protein
CC designated L-31-gal-lectin. The sequence is derived from clone 2. The
CC specification describes a method for testing a cell sample for

CC proteins that bind a Ras protein, involving preparing 2 reaction mixtures

CC where one mixture has a Ras antagonist. A cross linking agent is added,
CC and complexes between Ras protein and other proteins are produced. The
CC complexes are then separated and the proteins binding to Ras are
CC identified. The invention also describes a method useful for identifying
CC drug candidates that inhibit aberrant Ras activity. An antisense compound
CC comprising at least one phosphorothioate-modified nucleotide is useful
CC for disrupting aberrant Ras activity in vivo, by infusing the antisense
CC compound into a patient exhibiting this problem. The method is also
CC useful for identifying anchor proteins for the farnesylated isoforms of
CC H-Ras, K-Ras 4A, K-Ras 4B and N-Ras, whose mutated forms are known to be
CC oncogenic. Reducing or inhibiting aberrant Ras activity in vivo is useful
CC for treating diseases characterised by uncontrolled mitosis, including
CC cancers and various non-malignancies such as autoimmune disease (e.g.
CC type 1 diabetes, lupus and multiple sclerosis), cirrhosis, graft
CC rejection, atherosclerosis, polycystic kidneys and post-angioplasty
CC restenosis. This sequence encodes a galectin-3, a cell-membrane anchor
CC protein that binds an isoform of Ras.

xx
SQ Sequence 263 AA;

Query Match 78.4%; Score 1064.5; DB 23; Length 263;

Best Local Similarity 77.6%; Pred. No. 9.9e-77;

Matches 208; Conservative 16; Mismatches 17; Indels 27; Gaps 9;

QY 1 MADNFSLDALSGSGNPNQGWPGAWGNQAGAGYPCASYPG-YPCQAPPGAYPGQAPP 59

Db 1 MADSFLNDALAGSGNPNQGYPGAWGNQ-P-GAGGYPGAAYPGAYPGQAPP 59

QY 60 GAYHG-----APGAYPGAPAPGYVPGPGPGAYPSSGQPSAPGAY----- 100

Db 60 GAYPGQAPPAYPGTAPGAYPGTAPGAYPGQA-PGAPP--GPGAPGAYPCCSGYP 116

QY 101 ATGPGAPAGPLIYPYNLPLPGGVPRMLITILGTVPKPNANRIALDFQRGNDAFHF-PR 159

Db 117 AAGP-GVPAGPLTPYDPLPLPGGVPRMLITINGTKPNANRIVLDFRGNDAFHFNR 175

QY 160 FNNRRVIVCNTKLDNNWGEREQSVFPESGKPFKIQVLVEPDHFKVAVNDAH-LOYN 218

Db 176 FNNRRVIVCNTKQDNNWGEREQSAFPESGKPFKIQVLVEADHFKVAVNDAHLQYN 235

QY 219 HRVKKLNEISKIGISGIDILTSASYMI 246

Db 236 HRMKNLREISQIGISGIDILTSANHAMI 263

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 Quantitative thresholds of MHC class II I-E expressed on hemopoietically derived antigen-presenting cells in transgenic NOD/Lt mice determine level of diabetes resistance and indicate mechanism of protection.
 J Immunol. 1996 Aug 1;157(3):1279-87.
 PMID: 8757636 [PubMed - indexed for MEDLINE]
- ☐ 2: [McLean MP, Warden KJ, Sandhoff TW, Irby RB, Hales DB.](#) [Related Articles, Links](#)
 Altered ovarian sterol carrier protein expression in the pregnant streptozotocin-treated diabetic rat.
 Biol Reprod. 1996 Jul;55(1):38-46.
 PMID: 8793056 [PubMed - indexed for MEDLINE]
- ☐ 3: [Laville M, Aubocuf D, Khalfallah Y, Vega N, Riou JP, Vidal H.](#) [Related Articles, Links](#)
 Acute regulation by insulin of phosphatidylinositol-3-kinase, Rad, Glut 4, and lipoprotein lipase mRNA levels in human muscle.
 J Clin Invest. 1996 Jul 1;98(1):43-9.
 PMID: 8690802 [PubMed - indexed for MEDLINE]
- ☐ 4: [Taniguchi N, Kaneto H, Asahi M, Takahashi M, Wenyi C, Higashiyama S, Fujii J, Suzuki K, Kayanoki Y.](#) [Related Articles, Links](#)
 Involvement of glycation and oxidative stress in diabetic macroangiopathy.
 Diabetes. 1996 Jul;45 Suppl 3:S81-3.
 PMID: 8674900 [PubMed - indexed for MEDLINE]
- ☐ 5: [Tsao TS, Burcelin R, Charron MJ.](#) [Related Articles, Links](#)
 Regulation of hexokinase II gene expression by glucose flux in skeletal muscle.
 J Biol Chem. 1996 Jun 21;271(25):14959-63.
 PMID: 8663067 [PubMed - indexed for MEDLINE]
- ☐ 6: [Vafiadis P, Bennett ST, Colle E, Grabs R, Goodyer CG, Polychronakos C.](#) [Related Articles, Links](#)
 Imprinted and genotype-specific expression of genes at the IDDM2 locus in pancreas and leucocytes.
 J Autoimmun. 1996 Jun;9(3):397-403.
 PMID: 8816977 [PubMed - indexed for MEDLINE]
- ☐ 7: [Forsberg H, Borg LA, Cagliero E, Eriksson UJ.](#) [Related Articles, Links](#)
 Altered levels of scavenging enzymes in embryos subjected to a diabetic environment.
 Free Radic Res. 1996 Jun;24(6):451-9.
 PMID: 8804988 [PubMed - indexed for MEDLINE]
- ☐ 8: [Villafuerte BC, Zhang WN, Phillips LS.](#) [Related Articles, Links](#)
 Insulin and insulin-like growth factor-I regulate hepatic insulin-like growth factor binding protein-3 by different mechanisms.
 Mol Endocrinol. 1996 Jun;10(6):622-30.

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- ☐ 9: [Vidal-Puig A](#), [Jimenez-Linan M](#), [Lowell BB](#), [Hamann A](#), [Hu E](#), [Spiegelman B](#), [Flier JS](#), [Moller DE](#). Related Articles, Links
Regulation of PPAR gamma gene expression by nutrition and obesity in rodents.
J Clin Invest. 1996 Jun 1;97(11):2553-61.
PMID: 8647948 [PubMed - indexed for MEDLINE]
- ☐ 10: [Vives-Pi M](#), [Armengol MP](#), [Alcalde L](#), [Costa M](#), [Somoza N](#), [Vargas F](#), [Jaraquemada D](#), [Pujol-Borrell R](#). Related Articles, Links
Expression of transporter associated with antigen processing-1 in the endocrine cells of human pancreatic islets: effect of cytokines and evidence of hyperexpression in IDDM.
Diabetes. 1996 Jun;45(6):779-88.
PMID: 8635653 [PubMed - indexed for MEDLINE]
- ☐ 11: [Mally MI](#), [Cirulli V](#), [Hayek A](#), [Otonkoski T](#). Related Articles, Links
ICA69 is expressed equally in the human endocrine and exocrine pancreas.
Diabetologia. 1996 Apr;39(4):474-80.
PMID: 8777998 [PubMed - indexed for MEDLINE]
- ☐ 12: [Mueller R](#), [Lee MS](#), [Sawyer SP](#), [Sarvetnick N](#). Related Articles, Links
Transgenic expression of interleukin 10 in the pancreas renders resistant mice susceptible to low dose streptozotocin-induced diabetes.
J Autoimmun. 1996 Apr;9(2):151-8.
PMID: 8738958 [PubMed - indexed for MEDLINE]
- ☐ 13: [Vukovic J](#), [Dumic M](#), [Radica A](#), [Filipovic-Grcic B](#), [Jovanovic V](#). Related Articles, Links
Risk factors for expression and progression of limited joint mobility in insulin-dependent childhood diabetes.
Acta Diabetol. 1996 Mar;33(1):15-8.
PMID: 8777279 [PubMed - indexed for MEDLINE]
- ☐ 14: [Saghizadeh M](#), [Ong JM](#), [Garvey WT](#), [Henry RR](#), [Kern PA](#). Related Articles, Links
The expression of TNF alpha by human muscle. Relationship to insulin resistance.
J Clin Invest. 1996 Feb 15;97(4):1111-6.
PMID: 8613535 [PubMed - indexed for MEDLINE]
- ☐ 15: [Striker GE](#), [Eastman RD](#), [Striker LJ](#). Related Articles, Links
Diabetic nephropathy: molecular analysis of extracellular matrix and clinical studies update.
Nephrol Dial Transplant. 1996;11 Suppl 5:58-61.
PMID: 9044309 [PubMed - indexed for MEDLINE]
- ☐ 16: [Baeza NJ](#), [Moriscot CI](#), [Renaud WP](#), [Okamoto H](#), [Figarella CG](#), [Violettes BH](#). Related Articles, Links
Pancreatic regenerating gene overexpression in the nonobese diabetic mouse during active diabetogenesis.
Diabetes. 1996 Jan;45(1):67-70.
PMID: 8522062 [PubMed - indexed for MEDLINE]
- ☐ 17: [Dallman MF](#), [Akana SF](#), [Strack AM](#), [Hanson ES](#), [Sebastian RJ](#). Related Articles, Links
The neural network that regulates energy balance is responsive to glucocorticoids and insulin and also regulates HPA axis responsivity at a site proximal to CRF neurons.
Ann N Y Acad Sci. 1995 Dec 29;771:730-42. Review.
PMID: 8597446 [PubMed - indexed for MEDLINE]
- ☐ 18: [Guazzarotti L](#), [Thivolet C](#), [Tardivel I](#), [Chevalier A](#), [Carel JC](#). Related Articles, Links
Reactivity of islet cell antibodies (ICA) to recombinant glutamic acid

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decarboxylase (GAD).
J Autoimmun. 1995 Dec;8(6):901-14.
PMID: 8824714 [PubMed - indexed for MEDLINE]

☐ **19:** [Streck RD](#), [Rajaratnam VS](#), [Fishman RB](#), [Webb PJ](#).

[Related Articles](#), [Links](#)



Effects of maternal diabetes on fetal expression of insulin-like growth factor and insulin-like growth factor binding protein mRNAs in the rat.

J Endocrinol. 1995 Nov;147(2):R5-8.

PMID: 7490544 [PubMed - indexed for MEDLINE]

☐ **20:** [Murao S](#), [Sato M](#), [Tamaki M](#), [Niimi M](#), [Ishida T](#), [Takahara J](#).

[Related Articles](#), [Links](#)



Suppression of episodic growth hormone secretion in streptozotocin-induced diabetic mice: time-course studies on the hypothalamic pituitary axis.

Endocrinology. 1995 Oct;136(10):4498-504.

PMID: 7664670 [PubMed - indexed for MEDLINE]

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 **Hormonal and cell density regulation of hepatic gamma-glutamylcysteine synthetase gene expression.**
 Mol Pharmacol. 1995 Aug;48(2):212-8.
 PMID: 7651354 [PubMed - indexed for MEDLINE]
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 **Effects of enalapril treatment on gene expression of smooth muscle myosin heavy chain isoforms in glomeruli of diabetic rats.**
 Ren Physiol Biochem. 1995 Jul-Aug;18(4):183-90.
 PMID: 7481069 [PubMed - indexed for MEDLINE]
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 **Analysis of the glucose transporter compliment of metabolically important tissues from the Milan hypertensive rat.**
 Biochem Biophys Res Commun. 1995 Jun 26;211(3):780-91.
 PMID: 7598707 [PubMed - indexed for MEDLINE]
- ☐ **24:** [Polonsky KS.](#) [Related Articles](#), [Links](#)
 **Lilly Lecture 1994. The beta-cell in diabetes: from molecular genetics to clinical research.**
 Diabetes. 1995 Jun;44(6):705-17. Review.
 PMID: 7789637 [PubMed - indexed for MEDLINE]
- ☐ **25:** [Hotamisligil GS, Arner P, Caro JF, Atkinson RL, Spiegelman BM.](#) [Related Articles](#), [Links](#)
 **Increased adipose tissue expression of tumor necrosis factor-alpha in human obesity and insulin resistance.**
 J Clin Invest. 1995 May;95(5):2409-15.
 PMID: 7738205 [PubMed - indexed for MEDLINE]
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 **Levels of Tap-1 and Tap-2 mRNA and expression of Kd and Db on splenic lymphocytes are normal in NOD mice.**
 Diabetes. 1995 May;44(5):572-9.
 PMID: 7729618 [PubMed - indexed for MEDLINE]
- ☐ **27:** [Hustad CM, Perry WL, Siracusa LD, Rasberry C, Cobb L, Cattanach BM, Kovatch R, Copeland NG, Jenkins NA.](#) [Related Articles](#), [Links](#)
 **Molecular genetic characterization of six recessive viable alleles of the mouse agouti locus.**
 Genetics. 1995 May;140(1):255-65.
 PMID: 7635290 [PubMed - indexed for MEDLINE]
- ☐ **28:** [Gibbs EM, Stock JL, McCoid SC, Stukenbrok HA, Pessin JE, Stevenson RW, Milici AJ, McNeish JD.](#) [Related Articles](#), [Links](#)


Glycemic improvement in diabetic db/db mice by overexpression of the human


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 **insulin-regulatable glucose transporter (GLUT4).**
J Clin Invest. 1995 Apr;95(4):1512-8.
PMID: 7706456 [PubMed - indexed for MEDLINE]


 **29:** Runge-Morris M, Vento C. Related Articles, Links


 **Effects of streptozotocin-induced diabetes on rat liver sulfotransferase gene expression.**
Drug Metab Dispos. 1995 Apr;23(4):455-9.
PMID: 7600911 [PubMed - indexed for MEDLINE]


 **30:** Yamaoka T, Nishimura C, Yamashita K, Itakura M, Yamada T, Fujimoto J, Kokai Y. Related Articles, Links


 **Acute onset of diabetic pathological changes in transgenic mice with human aldose reductase cDNA.**
Diabetologia. 1995 Mar;38(3):255-61.
PMID: 7758869 [PubMed - indexed for MEDLINE]


 **31:** Gruden G, Pagano G, Romagnoli R, Frezet D, Olivetti C, Cavallo-Perin P. Related Articles, Links

 **Thrombomodulin levels in insulin-dependent diabetic patients with microalbuminuria.**
Diabet Med. 1995 Mar;12(3):258-60.
PMID: 7758263 [PubMed - indexed for MEDLINE]


 **32:** Mohiuddin L, Fernyhough P, Tomlinson DR. Related Articles, Links


 **Reduced levels of mRNA encoding endoskeletal and growth-associated proteins in sensory ganglia in experimental diabetes.**
Diabetes. 1995 Jan;44(1):25-30.
PMID: 7813810 [PubMed - indexed for MEDLINE]


 **33:** Harris RA, Popov KM, Zhao Y, Kedishvili NY, Shimomura Y, Crabb DW. Related Articles, Links

 **A new family of protein kinases--the mitochondrial protein kinases.**
Adv Enzyme Regul. 1995;35:147-62.
PMID: 7572341 [PubMed - indexed for MEDLINE]


 **34:** Katayama S, Abe M, Negishi K, Takahashi K, Ishii J, Komeda K. Related Articles, Links

 **Reciprocal changes in left ventricular collagen alpha 1 chain gene expression between types I and IV in spontaneously diabetic rats.**
Diabetes Res Clin Pract. 1994 Dec 31;26(3):163-9.
PMID: 7736896 [PubMed - indexed for MEDLINE]


 **35:** Rothe H, Faust A, Schade U, Kleemann R, Bosse G, Hibino T, Martin S, Kolb H. Related Articles, Links


 **Cyclophosphamide treatment of female non-obese diabetic mice causes enhanced expression of inducible nitric oxide synthase and interferon-gamma, but not of interleukin-4.**
Diabetologia. 1994 Nov;37(11):1154-8.
PMID: 7532600 [PubMed - indexed for MEDLINE]

 **36:** Sugahara K, Iyama K, Sano K, Morioka T. Related Articles, Links

 **Differential expressions of surfactant protein SP-A, SP-B, and SP-C mRNAs in rats with streptozotocin-induced diabetes demonstrated by in situ hybridization.**
Am J Respir Cell Mol Biol. 1994 Oct;11(4):397-404.
PMID: 7917308 [PubMed - indexed for MEDLINE]

 **37:** Koskinen LK, Lahtela JT, Koivula TA. Related Articles, Links

 **Fetal hemoglobin in diabetic patients.**
Diabetes Care. 1994 Aug;17(8):828-31.
PMID: 7525170 [PubMed - indexed for MEDLINE]

 **38:** Peterec SM, Nichols KV, Dynia DW, Wilson CM, Gross I. Related Articles, Links

Butyrate modulates surfactant protein mRNA in fetal rat lung by altering mRNA

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transcription and stability.

Am J Physiol. 1994 Jul;267(1 Pt 1):L9-15.

PMID: 8048547 [PubMed - indexed for MEDLINE]

☐ **39:** [Andersen DK](#), [Ruiz CL](#), [Burant CF](#).

[Related Articles, Links](#)



Insulin regulation of hepatic glucose transporter protein is impaired in chronic pancreatitis.

Ann Surg. 1994 Jun;219(6):679-86; discussion 686-7.

PMID: 8203977 [PubMed - indexed for MEDLINE]

☐ **40:** [Phillip M](#), [Werner H](#), [Palese T](#), [Kowarski AA](#), [Stannard B](#), [Bach LA](#),
[LeRoith D](#), [Roberts CT Jr](#).

[Related Articles, Links](#)



Differential accumulation of insulin-like growth factor-I in kidneys of pre- and postpubertal streptozotocin-diabetic rats.

J Mol Endocrinol. 1994 Apr;12(2):215-24.

PMID: 7520245 [PubMed - indexed for MEDLINE]

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☐ **41:** [Rothe H, Ongoren C, Martin S, Rosen P, Kolb H.](#) Related Articles, Links

 **Abnormal TNF-alpha production in diabetes-prone BB rats: enhanced TNF-alpha expression and defective PGE2 feedback inhibition.**
Immunology. 1994 Mar;81(3):407-13.
PMID: 8206514 [PubMed - indexed for MEDLINE]


☐ **42:** [Vestergaard H, Andersen PH, Lund S, Vedel P, Pedersen O.](#) Related Articles, Links

 **Expression of glycogen synthase and phosphofructokinase in muscle from type 1 (insulin-dependent) diabetic patients before and after intensive insulin treatment.**
Diabetologia. 1994 Jan;37(1):82-90.
PMID: 7512060 [PubMed - indexed for MEDLINE]


☐ **43:** [Kim J, Richter W, Aanstoot HJ, Shi Y, Fu Q, Rajotte R, Warnock G, Baekkeskov S.](#) Related Articles, Links

 **Differential expression of GAD65 and GAD67 in human, rat, and mouse pancreatic islets.**
Diabetes. 1993 Dec;42(12):1799-808.
PMID: 8243826 [PubMed - indexed for MEDLINE]


☐ **44:** [Serreze DV, Gaedeke JW, Leiter EH.](#) Related Articles, Links

 **Hematopoietic stem-cell defects underlying abnormal macrophage development and maturation in NOD/Lt mice: defective regulation of cytokine receptors and protein kinase C.**
Proc Natl Acad Sci U S A. 1993 Oct 15;90(20):9625-9.
PMID: 8415751 [PubMed - indexed for MEDLINE]


☐ **45:** [Andersen PH, Vestergaard H, Lund S, Vedel P, Junker S, Kahn BB, Pedersen O.](#) Related Articles, Links

 **The effect of intensive insulin therapy on the insulin-regulatable glucose transporter (GLUT4) expression in skeletal muscle in type 1 diabetes.**
Diabet Med. 1993 Oct;10(8):699-706.
PMID: 7505214 [PubMed - indexed for MEDLINE]

☐ **46:** [Neufer PD, Carey JO, Dohm GL.](#) Related Articles, Links











 **Transcriptional regulation of the gene for glucose transporter GLUT4 in skeletal muscle. Effects of diabetes and fasting.**
J Biol Chem. 1993 Jul 5;268(19):13824-9.
PMID: 7686145 [PubMed - indexed for MEDLINE]

☐ **47:** [Westermarck GT, Christmansson L, Terenghi G, Permerth J, Betsholtz C, Larsson J, Polak JM, Westermarck P.](#) Related Articles, Links

 **Islet amyloid polypeptide: demonstration of mRNA in human pancreatic islets by in situ hybridization in islets with and without amyloid deposits.**
Diabetologia. 1993 Apr;36(4):323-8.
PMID: 8477877 [PubMed - indexed for MEDLINE]

☐ **48:** [Serreze DV, Gaskins HR, Leiter EH.](#) Related Articles, Links

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-  Defects in the differentiation and function of antigen presenting cells in NOD/Lt mice.
J Immunol. 1993 Mar 15;150(6):2534-43.
PMID: 8450229 [PubMed - indexed for MEDLINE]
- ☐ 49: [Flores-Riveros JR](#), [McLenithan JC](#), [Ezaki O](#), [Lane MD](#). Related Articles, Links
 Insulin down-regulates expression of the insulin-responsive glucose transporter (GLUT4) gene: effects on transcription and mRNA turnover.
Proc Natl Acad Sci U S A. 1993 Jan 15;90(2):512-6.
PMID: 8421683 [PubMed - indexed for MEDLINE]
- ☐ 50: [Finco C](#), [Abbracchio MP](#), [Malosio ML](#), [Cattabeni F](#), [Di Giulio AM](#), [Paternieri B](#), [Mantegazza P](#), [Gorio A](#). Related Articles, Links
 Diabetes-induced alterations of central nervous system G proteins. ADP-ribosylation, immunoreactivity, and gene-expression studies in rat striatum.
Mol Chem Neuropathol. 1992 Dec;17(3):259-72.
PMID: 1492884 [PubMed - indexed for MEDLINE]
- ☐ 51: [Dimitrakoudis D](#), [Vranic M](#), [Klip A](#). Related Articles, Links
 Effects of hyperglycemia on glucose transporters of the muscle: use of the renal glucose reabsorption inhibitor phlorizin to control glycemia.
J Am Soc Nephrol. 1992 Nov;3(5):1078-91. Review.
PMID: 1482748 [PubMed - indexed for MEDLINE]
- ☐ 52: [Tal M](#), [Liang Y](#), [Najafi H](#), [Lodish HF](#), [Matschinsky FM](#). Related Articles, Links
 Expression and function of GLUT-1 and GLUT-2 glucose transporter isoforms in cells of cultured rat pancreatic islets.
J Biol Chem. 1992 Aug 25;267(24):17241-7.
PMID: 1512261 [PubMed - indexed for MEDLINE]
- ☐ 53: [Jaffa AA](#), [Chai KX](#), [Chao J](#), [Chao L](#), [Mayfield RK](#). Related Articles, Links
 Effects of diabetes and insulin on expression of kallikrein and renin genes in the kidney.
Kidney Int. 1992 Apr;41(4):789-95.
PMID: 1513101 [PubMed - indexed for MEDLINE]
- ☐ 54: [Luo J](#), [Murphy LJ](#). Related Articles, Links
 Differential expression of the insulin-like growth factor binding proteins in spontaneously diabetic rats.
J Mol Endocrinol. 1992 Apr;8(2):155-63.
PMID: 1381181 [PubMed - indexed for MEDLINE]
- ☐ 55: [Eriksson J](#), [Koranyi L](#), [Bourey R](#), [Schalin-Jantti C](#), [Widen E](#), [Mueckler M](#), [Permutt AM](#), [Groop LC](#). Related Articles, Links
 Insulin resistance in type 2 (non-insulin-dependent) diabetic patients and their relatives is not associated with a defect in the expression of the insulin-responsive glucose transporter (GLUT-4) gene in human skeletal muscle.
Diabetologia. 1992 Feb;35(2):143-7.
PMID: 1547918 [PubMed - indexed for MEDLINE]
- ☐ 56: [Kaufman DL](#), [Erlander MG](#), [Clare-Salzler M](#), [Atkinson MA](#), [Maclaren NK](#), [Tobin AJ](#). Related Articles, Links
 Autoimmunity to two forms of glutamate decarboxylase in insulin-dependent diabetes mellitus.
J Clin Invest. 1992 Jan;89(1):283-92.
PMID: 1370298 [PubMed - indexed for MEDLINE]
- ☐ 57: [Campbell IL](#), [Oxbrow L](#), [Harrison LC](#). Related Articles, Links
 Reduction in insulinitis following administration of IFN-gamma and TNF-alpha in the NOD mouse.
J Autoimmun. 1991 Apr;4(2):249-62.

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☐ **58:** [Thorens B](#), [Weir GC](#), [Leahy JL](#), [Lodish HF](#), [Bonner-Weir S](#).

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Reduced expression of the liver/beta-cell glucose transporter isoform in glucose-insensitive pancreatic beta cells of diabetic rats.

Proc Natl Acad Sci U S A. 1990 Sep;87(17):6492-6.

PMID: 2204056 [PubMed - indexed for MEDLINE]

☐ **59:** [Murty CV](#), [Demyan WF](#), [Chatterjee B](#), [Roy AK](#).

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Partial reversal of alpha 2u globulin gene expression by thyroxine in the liver of diabetic rats.

Biochemistry. 1986 Jul 29;25(15):4376-80.

PMID: 2428395 [PubMed - indexed for MEDLINE]

☐ **60:** [Mariash CN](#), [Oppenheimer JH](#).

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Interaction of thyroid hormone and nutritional signals on thyroid hormone action.

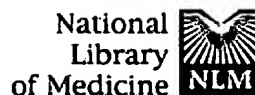
Mol Cell Endocrinol. 1985 Nov;43(1):3-13. Review.

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Folia Haematol Int Mag Klin Morphol Blutforsch. 1984;111(4):468-74. German.

PMID: 6083912 [PubMed - indexed for MEDLINE]

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 **The diabetic milieu modulates the advanced glycation end product-receptor complex in the mesangium by inducing or upregulating galectin-3 expression.**
 Diabetes. 2000 Jul;49(7):1249-57.
 PMID: 10909985 [PubMed - indexed for MEDLINE]
- ☐ **2:** [Pricci F, Leto G, Amadio L, Iacobini C, Romeo G, Cordone S, Gradini R, Barsotti P, Liu FT, Di Mario U, Pugliese G.](#) Related Articles, Links
 **Role of galectin-3 as a receptor for advanced glycosylation end products.**
 Kidney Int Suppl. 2000 Sep;77:S31-9. Review.
 PMID: 10997688 [PubMed - indexed for MEDLINE]
- ☐ **3:** [Mene P, Pascale C, Teti A, Bernardini S, Cinotti GA, Pugliese F.](#) Related Articles, Links
 **Effects of advanced glycation end products on cytosolic Ca²⁺ signaling of cultured human mesangial cells.**
 J Am Soc Nephrol. 1999 Jul;10(7):1478-86.
 PMID: 10405203 [PubMed - indexed for MEDLINE]
- ☐ **4:** [Pugliese G, Pricci F, Romeo G, Pugliese F, Mene P, Giannini S, Cresci B, Galli G, Rotella CM, Vlassara H, Di Mario U.](#) Related Articles, Links
 **Upregulation of mesangial growth factor and extracellular matrix synthesis by advanced glycation end products via a receptor-mediated mechanism.**
 Diabetes. 1997 Nov;46(11):1881-7.
 PMID: 9356040 [PubMed - indexed for MEDLINE]
- ☐ **5:** [Yazaki K.](#) Related Articles, Links
 **Effects of glycated protein on the expression of very late antigen 5 (VLA5), a fibronectin receptor, of cultured rat mesangial cells.**
 Nippon Jinzo Gakkai Shi. 1994 Nov;36(11):1251-7.
 PMID: 7853757 [PubMed - indexed for MEDLINE]
- ☐ **6:** [Twigg SM, Cao Z, McLennan SV, Burns WC, Brammar G, Forbes JM, Cooper ME.](#) Related Articles, Links
 **Renal connective tissue growth factor induction in experimental diabetes is prevented by aminoguanidine.**
 Endocrinology. 2002 Dec;143(12):4907-15.
 PMID: 12446618 [PubMed - indexed for MEDLINE]
- ☐ **7:** [Yamagishi S, Inagaki Y, Okamoto T, Amano S, Koga K, Takeuchi M, Makita Z.](#) Related Articles, Links
 **Advanced glycation end product-induced apoptosis and overexpression of vascular endothelial growth factor and monocyte chemoattractant protein-1 in human-cultured mesangial cells.**
 J Biol Chem. 2002 Jun 7;277(23):20309-15.
 PMID: 11912219 [PubMed - indexed for MEDLINE]
- ☐ **8:** [Deng Y, Chen X, Ye Y.](#) Related Articles, Links

[Effects of glycated protein on the expression of plasminogen activator inhibitor-1


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 of cultured human mesangial cells]
Zhonghua Yi Xue Za Zhi. 1997 Sep;77(9):672-5. Chinese.
PMID: 9772536 [PubMed - indexed for MEDLINE]


☐ **9:** [Chibber R, Molinatti PA, Rosatto N, Lambourne B, Kohner EM.](#) [Related Articles, Links](#)

 Toxic action of advanced glycation end products on cultured retinal capillary pericytes and endothelial cells: relevance to diabetic retinopathy.
Diabetologia. 1997 Feb;40(2):156-64.
PMID: 9049475 [PubMed - indexed for MEDLINE]


☐ **10:** [Stitt AW, He C, Vlassara H.](#) [Related Articles, Links](#)

 Characterization of the advanced glycation end-product receptor complex in human vascular endothelial cells.
Biochem Biophys Res Commun. 1999 Mar 24;256(3):549-56.
PMID: 10080935 [PubMed - indexed for MEDLINE]


☐ **11:** [Westwood ME, McLellan AC, Thornalley PJ.](#) [Related Articles, Links](#)

 Receptor-mediated endocytic uptake of methylglyoxal-modified serum albumin. Competition with advanced glycation end product-modified serum albumin at the advanced glycation end product receptor.
J Biol Chem. 1994 Dec 23;269(51):32293-8.
PMID: 7798229 [PubMed - indexed for MEDLINE]


☐ **12:** [Ruggiero-Lopez D, Rellier N, Lecomte M, Lagarde M, Wiernsperger N.](#) [Related Articles, Links](#)

 Growth modulation of retinal microvascular cells by early and advanced glycation products.
Diabetes Res Clin Pract. 1997 Jan;34(3):135-42.
PMID: 9069564 [PubMed - indexed for MEDLINE]


☐ **13:** [Vlassara H, Li YM, Imani F, Wojciechowicz D, Yang Z, Liu FT, Cerami A.](#) [Related Articles, Links](#)

 Identification of galectin-3 as a high-affinity binding protein for advanced glycation end products (AGE): a new member of the AGE-receptor complex.
Mol Med. 1995 Sep;1(6):634-46.
PMID: 8529130 [PubMed - indexed for MEDLINE]


☐ **14:** [Cohen MP, Ziyadeh FN.](#) [Related Articles, Links](#)

 Amadori glucose adducts modulate mesangial cell growth and collagen gene expression.
Kidney Int. 1994 Feb;45(2):475-84.
PMID: 8164436 [PubMed - indexed for MEDLINE]


☐ **15:** [Kang MJ, Wu X, Ly H, Thai K, Scholey JW.](#) [Related Articles, Links](#)

 Effect of glucose on stress-activated protein kinase activity in mesangial cells and diabetic glomeruli.
Kidney Int. 1999 Jun;55(6):2203-14.
PMID: 10354269 [PubMed - indexed for MEDLINE]

☐ **16:** [Higashi T, Sano H, Saishoji T, Ikeda K, Jinnouchi Y, Kanzaki T, Morisaki N, Rauvala H, Shichiri M, Horiuchi S.](#) [Related Articles, Links](#)

 The receptor for advanced glycation end products mediates the chemotaxis of rabbit smooth muscle cells.
Diabetes. 1997 Mar;46(3):463-72.
PMID: 9032104 [PubMed - indexed for MEDLINE]

☐ **17:** [Pugliese G, Pricci F, Iacobini C, Leto G, Amadio L, Barsotti P, Frigeri L, Hsu DK, Vlassara H, Liu FT, Di Mario U.](#) [Related Articles, Links](#)

 Accelerated diabetic glomerulopathy in galectin-3/AGE receptor 3 knockout mice.
FASEB J. 2001 Nov;15(13):2471-9.
PMID: 11689472 [PubMed - indexed for MEDLINE]

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☐ **18:** [Tsuji H, Iehara N, Masegi T, Imura M, Ohkawa J, Arai H, Ishii K, Kita T, Doi T.](#) [Related Articles](#), [Links](#)



Ribozyme targeting of receptor for advanced glycation end products in mouse mesangial cells.

Biochem Biophys Res Commun. 1998 Apr 17;245(2):583-8.
PMID: 9571198 [PubMed - indexed for MEDLINE]

☐ **19:** [Sakata N, Meng J, Takebayashi S.](#)

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Effects of advanced glycation end products on the proliferation and fibronectin production of smooth muscle cells.

J Atheroscler Thromb. 2000;7(3):169-76.
PMID: 11480459 [PubMed - indexed for MEDLINE]

☐ **20:** [Gugliucci A, Bendayan M.](#)

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Reaction of advanced glycation endproducts with renal tissue from normal and streptozotocin-induced diabetic rats: an ultrastructural study using colloidal gold cytochemistry.

J Histochem Cytochem. 1995 Jun;43(6):591-600.
PMID: 7769229 [PubMed - indexed for MEDLINE]

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